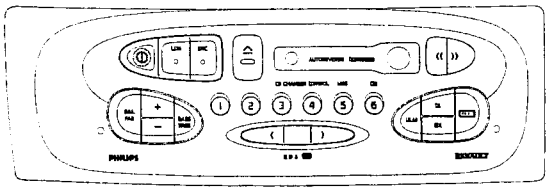
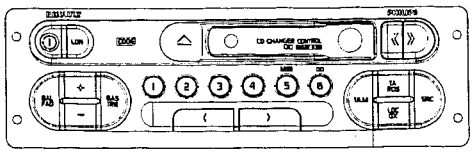
Casette Car Radio 22DC449/62E/L

22DC459/62E/F/L/S/Z

Service
Service
Service



/F/L/Z versions



/E/S versions

For repair information of the cassette deck, see S. Manual of Auto Cassette Deck
CDS101Y 4822 725 24651 for DC459
CDS36 4822 725 25453 for DC449

ServiceManual

12 V

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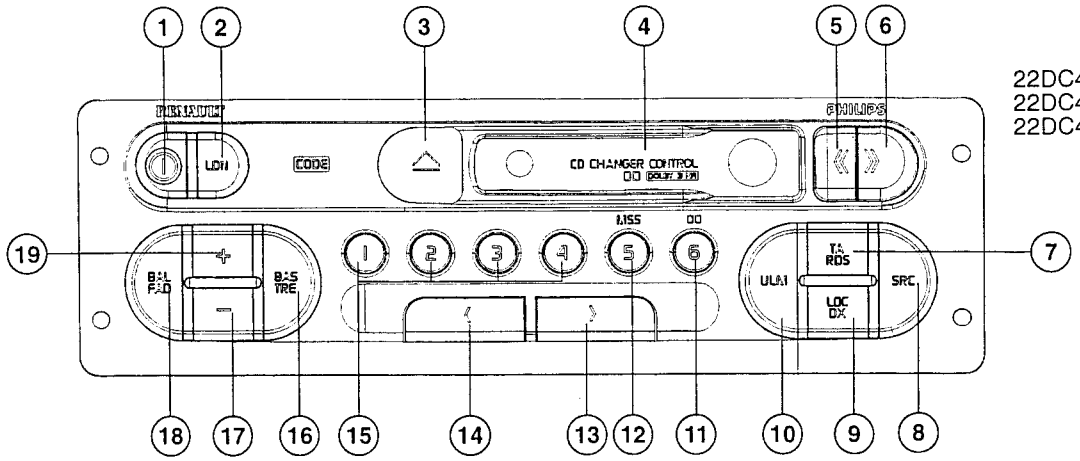
4822 725 25862

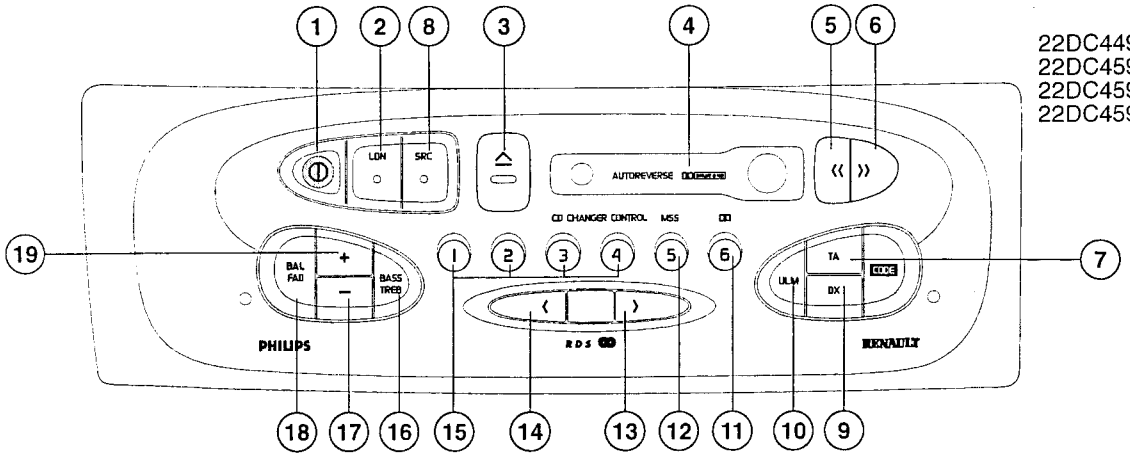
PCS 98 142

PHILIPS

CONTROLS



22DC449/62E
22DC459/62E
22DC459/62S

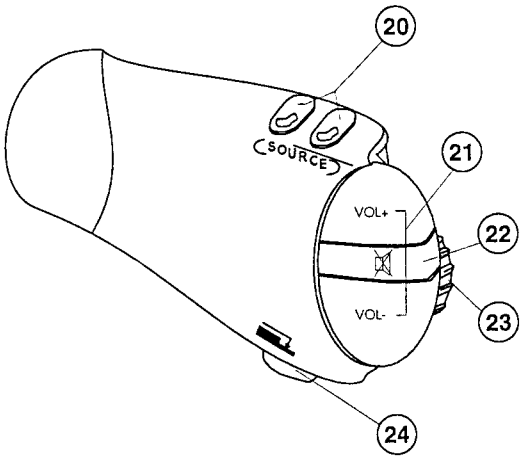


22DC449/62L
22DC459/62F
22DC459/62L
22DC459/62Z

POS	22DC449/62E ../62L	22DC459/62S ../62F	22DC459/62E ../62L ../62Z
1	On / Off		
2	Loudness		
3	Eject button		
4	Cassette opening + flap		
5	Fast rewind button		
6	Fast forward button		
7	Traffic announcement / RDS		
8	Source		
9	Select local or distance mode		
10	Band selection		
11	Preset 6	Preset 6 / Dolby	Preset 6 / Dolby / Disk 6 / Scan
12	Preset 5	Preset 5 / MSS	Preset 5 / MSS / Disk 5/ Scan
13	Search UP		Search UP / Next track
14	Search DOWN		Search DOWN / Previous track
15	Preset 1,2,3,4		Preset 1,2,3,4 / Disk 1,2,3,4 / Scan
16	Bass / Treble		
17	Vol , Bass, Treble, Balance -	Vol , Bass, Treble, Balance, Fader -	
18	Balance	Balance / Fader	
19	Vol , Bass, Treble, Balance +	Vol , Bass, Treble, Balance, Fader +	

22DC449/62.
22DC459/62.

REMOTE CONTROL



20	Change waveband/source	
21	Vol , Bass, Treble, Balance, Fader + and - when corresponding function activated	
22	In code entry mode: SP : Validation digit Sec Code LP : Validation Sec Code	All others modes: Mute / Demute
23	In code entry mode: Selection digits Sec Code	Changing preset / Track selection
24	In code entry mode: SP : Validation digit Sec Code LP : Validation Sec Code	In radio mode: SP : search UP LP : Starts Autostore

SP : Short press LP : Long press (>2s)

TECHNICAL DATA

GENERAL

Power supply	:14.4V DC
Dimensions	:180x150x51 mm
Security code	: Yes
Remote control	: Yes
Remote display	: Yes

RADIO

LW	: 153-279 KHz
MW	: 531-1602 KHz
FM	: 87.5-108 MHz
IF-AM (1/2)	: 10.7 MHz/450 KHz
IF-FM (1/2)	: 72.2 MHz/10.7 MHz
Sensivity 26dB S/N	: <40 µV (LW)
	: <40 µV (MW)
	: 3.5 µV (FM)
Limitation α-3dB	: 3µV<L<14µV

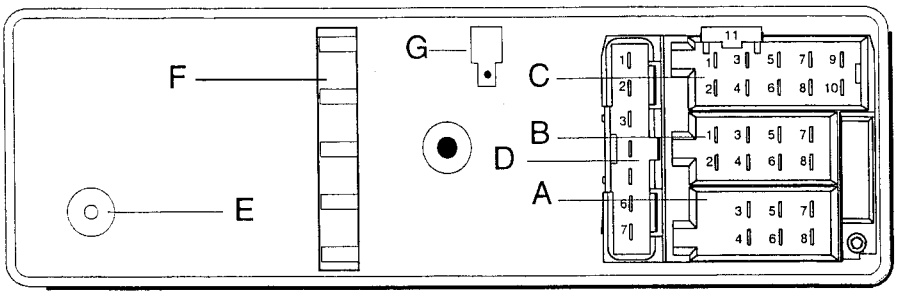
CASSETTE

Cassette mechanism	: CDS101-Y (DC459)
	: CDS36 (DC449)
Number of tracks	: 2x2
Tape speed	: 4.76 cm/sec
Wow and flutter	: ≤ 0.35%
Crosstalk	: ≥ 30 dB

AMPLIFIER

Output power	: 4x15 W / 4 Ω (THD = 10%) DC459
	: 2x5W / 4 Ω (THD = 10%) DC449
Fader control	: ≥30 dB (DC459 only)
Balance control	: ≥12 dB (DC449 only)
	: ≥30 dB (DC459 only)
Source separation	: ≥60 dB
Input sensivity (CD in)	: 150 mV ± 2 dB

CONNECTIONS

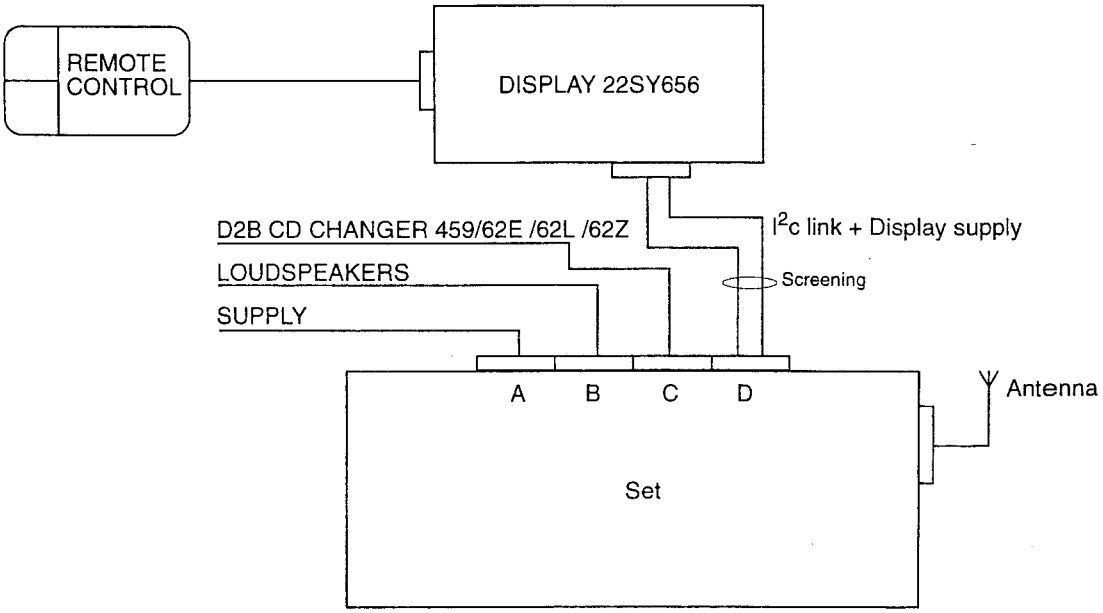


POS	FUNCTION	449/62E - 449/62L	459/62F - 459/62S	459/62E - 459/62L - 459/62Z
A1				
A2				
A3	Mute radio (0V)	X	X	X
A4	Plus permanent	X	X	X
A5	+ Antenna	X	X	X
A6	Pilot light	X	X	X
A7	Plus accessories	X	X	X
A8	GND	X	X	X
B1	Rear right +		X	X
B2	Rear right -		X	X
B3	Front right +	X	X	X
B4	Front right -	X	X	X
B5	Front left +	X	X	X
B6	Front left -	X	X	X
B7	Rear left +		X	X
B8	Rear left -		X	X
C1	Screening D2B			X
C2	Bus D2B +			X
C3	Bus D2B -			X
C4	GND supply			X
C5	CD supply (A4)			X
C6				
C7	Info on / off (A5)			X
C8	input right			X
C9	Input left			X
C10	Input ref			X
C11	Screening CD			X
D1	Data I2C	X	X	X
D2	Clock I2C	X	X	X
D3	Mrq I2C	X	X	X
D4				
D5				
D6	+ antenna	X	X	X
D7	GND	X	X	X
E	AERIAL PLUG	X	X	X
F	Fastening cable	X	X	X
G	GND plug	X	X	X

22 DC449/62.
22 DC459/62.

These sets are parts of a system, composed of the following parts:
1)- The set 22DC449/62- or 22DC459/62-
2)- A remote control + cable.
3)- A remote display 22SY656/62 or 62X.(A1+ display)
4)- A cable link between the set (connector D) and the display.

-IN CASE YOU NEED PARTS OF THIS SYSTEM, PLEASE CONTACT LOCALLY RENAULT TO GET INFO ABOUT THESE PARTS.



This set is protected by a security code. **THE CODE CAN ONLY BE ENTERED VIA THE REMOTE CONTROL.**

Entering the code:
-) Press the On/Off key to switch on the set. 0000 will appear on the display.
-) To select the four digits of the code:
- Adjust the flashing digit with the thumbwheel on the remote control.
- Press the [22] key or 24] key on the remote control to change the digit.

-) Press the [22] key or [24] key for at least 2 seconds to validate the code.
When the code is activated a bleep will be heard.

Example : you want to enter the code 7637

	Turn the thumbwheel Press [22] or [24]	Turn the thumbwheel Press [22] or [24]	Turn the thumbwheel Press [22] or [24]	Turn the thumbwheel Press [22] or [24]	Press [22] or [24] for at least 2 seconds
0000	7000	7600	7630	7637	Last heard frequency

2 - Keyboard test

Starting the test: press P3 and ON.

"T" is displayed to request keyboard test. For each key pressed, the number of the pressed key appears, according to the table shown below. When all 17 keys have been pressed, "TEST OK" message is displayed.
This test can be aborted at any time by switching the set OFF.

number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
key	LDN	BAL FAD	+	-	BAS TRE	Pr 1	Pr 2	Pr 3	Pr 4	Pr 5	Pr 6	ULM	TA	DX	SRC	<	>

If all is right, the display shows "KEYS OK"

3 - Check sum and Running times (Multiples of ten minutes)

At the end of the keyboard test, press P3 to start this test.
The display will show in order, during 5s each :

1) the checksum calculated from ROM content : CSM A1B2 (exemple)
2) the running time in tuner mode : TU ....
3) the running time in cassette mode : TA ....
4) the running time in Cd changer mode CDC ....
5) the running time in Traffic Announcement TR ....
6) the running time in Telephone Call SP ....
7) the total running time TOT ....
8) the running time in nominal mode I^2C NOM ....

These indications are displayed in a loop. To end the test, switch Off the set.

ESD

WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

ESD equipment available:

Anti-static table mat large 1200X650X1.25mm	4822 466 10953
small 600X650X1.25mm	4822 466 10958
Connection box (1Mohm)	4822 395 10223
Extendible cable (to connect wrist band to connection box)	4822 320 11307
Connecting cable (to connect table mat to connection box)	4822 320 11305
Earth cable (to connect any product to mat or box)	4822 320 11308
Complete kit ESD3 (combining all above products)	4822 310 10671
wristband tester	4822 344 13999

CHECKS AND ALIGNMENTS

No alignment is needed for radio part. IC96 tuner is pre-aligned.

For all measurement, please refer to "General Check & Alignment procedures for Car Systems' 4822 725 25456, unless otherwise stated.

Checks:
- Supply voltages (set Off)

SET OFF	Voltage	Current + Acc ON	V reset Pin 4 µP	Vdd Pin 40 µP	V hold Pin 8 µP	Current + Acc OFF
Acc supply	+14.4V	< 3mA	min Vdd x 0.7	min 4.5V max 5.5V	max Vdd x 0.3	< 1.5mA

- Supply voltages (set On)

V reset pin 4 µP	V pin 40 µP	V hold pin 8 µP	V 5V E 7417	V 8.5V E 7418	V EEprom pin 8
max Vdd x 0.7	min 4.5V max 5.5V	min Vdd x 0.7	min 4.7V max 5.4V	min 8.0V max 8.9V	min 4.5V max 5.5V

- Reference oscillator frequencies

device	µP 7500	SAA6579 7260	MSM6307 7600 (CDC only)
pin	3	13	25
frequency	8 MHz 0.5%	4.332 MHz 20ppm	6 MHz 0.5%

Deck part
Use test cassette SBC420 4822 397 30071 unless otherwise stated.

Tape speed and flutter: Use 3.15KHz test tone	Supply voltage	Tape speed	Flutter (wtd)
	10.8 - 15.6 V	4.76cm/s +3% -1%	< 0.35%

Crosstalk : use 1KHz 0dB crosstalk signal	< -30dB at speakers output R & L

FM part
- Demodulated FM levels

Input	Output of IC96 (pin 15 & 16)
98 MHz	300 mV ± 50 mV

- Limiting point α-3dB

Range	Input	min	nominal	max
87.5 to 108 MHz	1Khz	4µV	7µV	12µV

- Check of search levels

Search levels	Input	Dx: 7µV < X < 23µV Local : 120µV < X < 360µV
	98 MHz	

- Pause detector

f = 94MHz fm = 1KHz	Δf = 0.6KHz	Pin 6 of 7230 < 0.8V
	Δf = 3.5KHz	Pin 6 of 7230 > 2.0V

PCS 98 146

AM part

- Usable sensivity 26dB S/N

Sensivity at 26dB S/N	207 KHz	m = 30%	1KHz	< 38µV	typ 28
	1053 KHz			< 30µV	typ 22

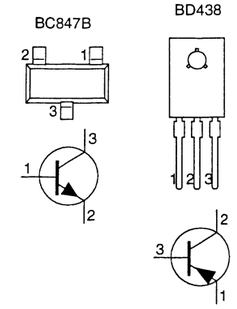
- Check of search levels
Conditions: start with set in FM DX mode, change to AM = 1053KHz

Search levels	Input	low : 35µV < X < 140µV high : 7µV < X < 28µV
	1053KHz	

INTEGRATED CIRCUITS

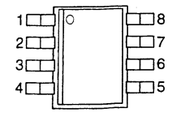
SAA6579T Radio Data System demodulator

SYMBOL	PIN	DESCRIPTION
QUAL	1	quality indication output
RDDA	2	RDS data output
V_{ref}	3	reference voltage output (0.5 V_{DDA})
MPX	4	multiplex input signal
V_{DDA}	5	+5V supply voltage for analog part
V_{SSA}	6	ground for analog part (0V)
CIN	7	subcarrier input to comparator
SCOUT	8	subcarrier output for reconstruction filter
TCTR	9	test control
TEN	10	test enable
V_{SSD}	11	ground for digital part (0V)
V_{DDD}	12	+5V supply voltage for digital part
OSCI	13	oscillator input
OSCO	14	oscillator output
T57	15	57kHz clock signal output
RDCL	16	RDS clock output



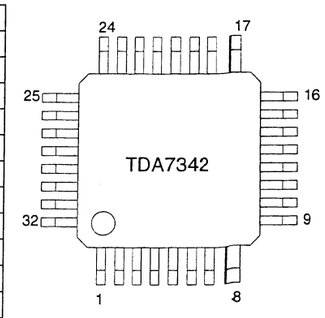
MC4558 Dual op amp

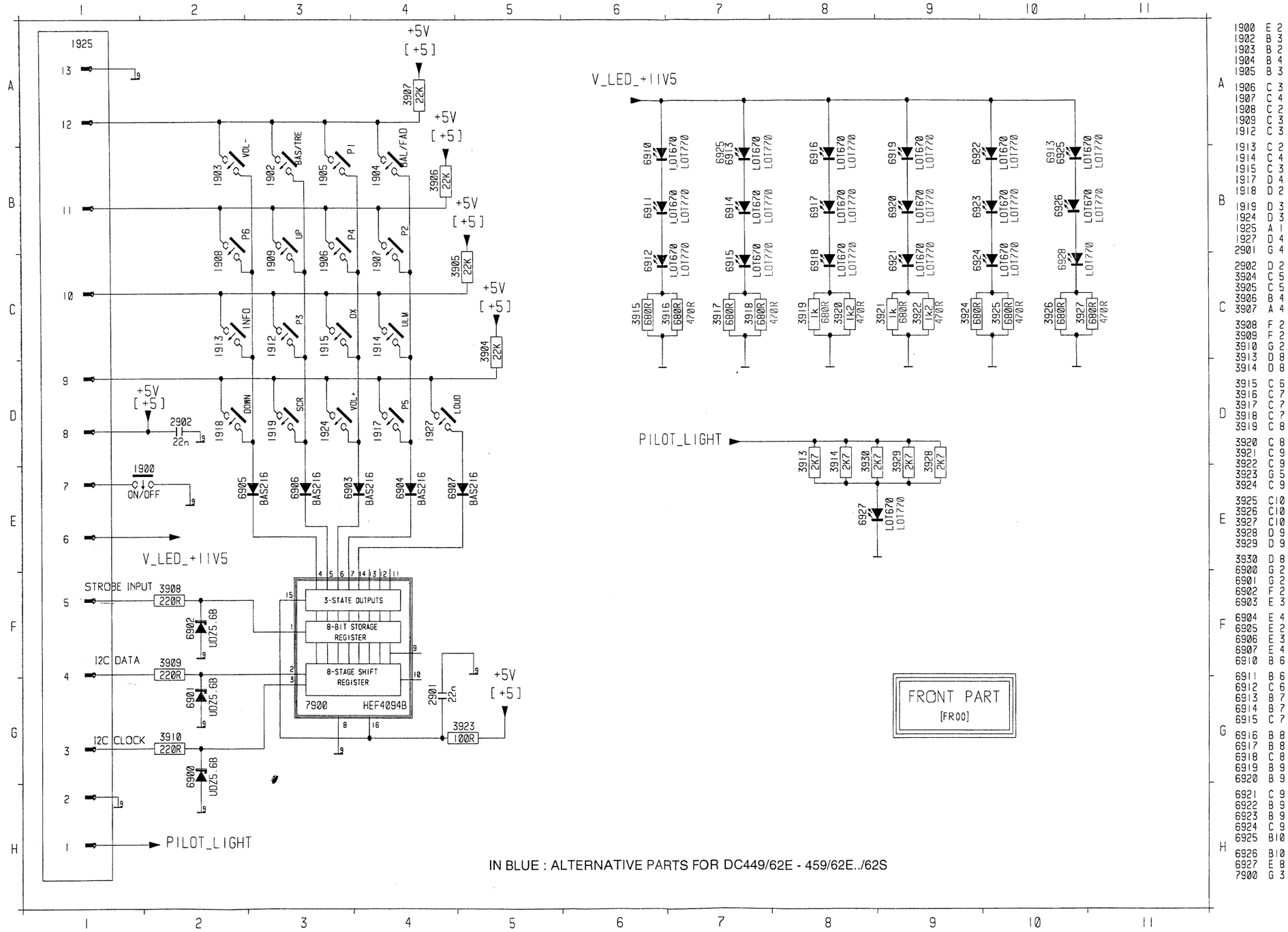
PIN	DESCRIPTION
1	Output 1
2	Inverting input 1
3	Non inverting input 1
4	Vcc -
5	Non inverting input 2
6	Inverting input 2
7	Output 2
8	Vcc +



TDA7342 Digitally controlled audio processor

SYMBOL	PIN	DESCRIPTION	SYMBOL	PIN	DESCRIPTION
TR R	1	Treble control capacitor right	BIN L	17	Bass control input left
IN R	2	Input right	BOUT L	18	Bass control output left
OUT R	3	Output right	BIN R	19	Bass control input right
LOUD R	4	Input loudness, right control part	BOUT R	20	Bass control output right
IN R3	5	Input 3 right source (CD)	SM	21	Soft mute control
IN R2	6	Input 2 right source	OUT RR	22	Output rear right
IN R1	7	Input 1 right source	OUT LR	23	Output left right
MONO	8	Input mono source	OUT RF	24	Output right front
LOUD L	9	Input loudness, left control part	OUT LF	25	Output left front
CD GND	10	Ground input CD	DIG GND	26	Bus ground
IN L3	11	Input 3 left source (CD)	SDA	27	I2C Data
IN L2	12	Input 2 left source	SCL	28	I2C Clock
IN L1	13	Input 1 left source	CREF	29	Supply reference capacitor
CSM	14	Soft mute control capacitor	Vs	30	Supply voltage
IN L	15	Input right	GND	31	Ground
OUT L	16	Output left	TRL	32	Treble control capacitor left

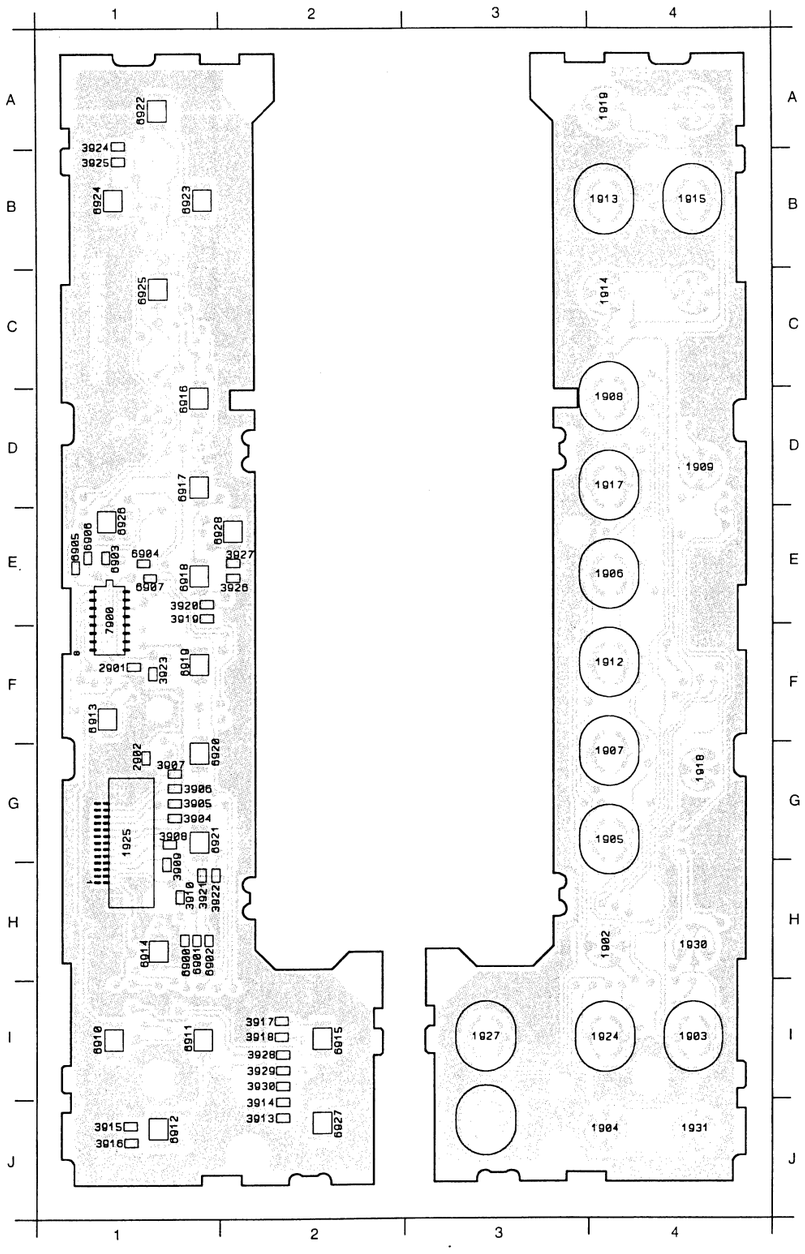




IN BLUE : ALTERNATIVE PARTS FOR DC449/62E - 459/62E../62S

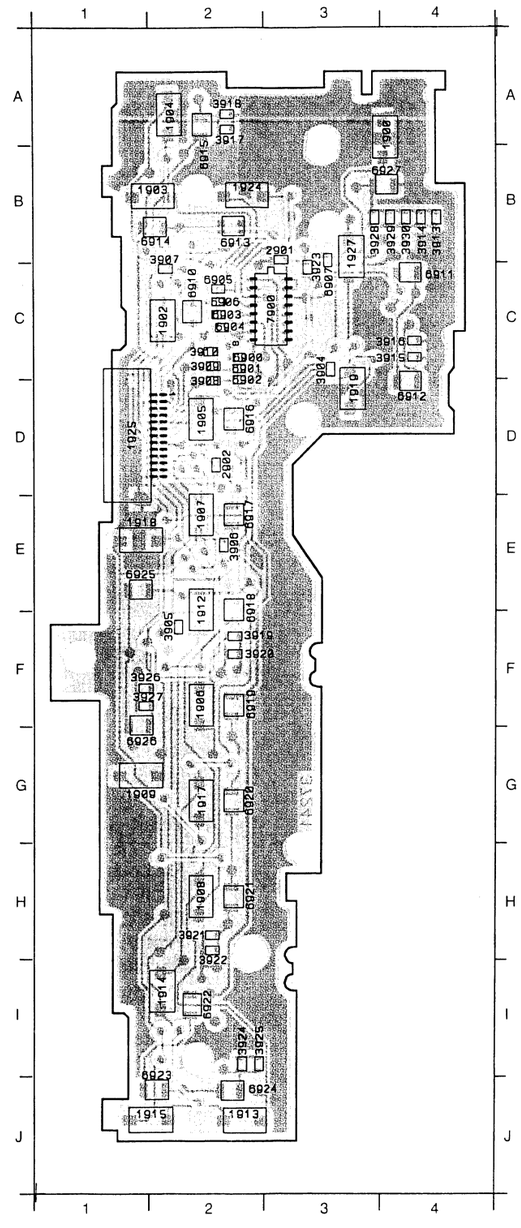
1900 E 2
1902 B 3
1903 B 2
1904 B 4
1905 B 3
1906 C 3
1907 C 4
1908 C 2
1909 C 3
1912 C 3
1913 C 2
1914 C 4
1915 C 3
1917 D 4
1918 D 2
1919 D 3
1924 D 3
1925 A 1
1927 D 4
2901 G 4
2902 D 2
3904 C 5
3905 C 5
3906 B 4
3907 A 4
3908 F 2
3909 F 2
3910 G 2
3913 D 8
3914 D 8
3915 C 6
3916 C 7
3917 C 7
3918 C 7
3919 C 8
3920 C 8
3921 C 9
3922 C 9
3923 G 5
3924 C 9
3925 C10
3926 C10
3927 C10
3928 D 9
3929 D 9
3930 D 8
6900 G 2
6901 G 2
6902 F 2
6903 E 3
6904 E 4
6905 E 2
6906 E 3
6907 E 4
6910 B 6
6911 B 6
6912 C 6
6913 B 7
6914 B 7
6915 C 7
6916 B 8
6917 B 8
6918 C 8
6919 B 9
6920 B 9
6921 C 9
6922 B 9
6923 B 9
6924 C 9
6925 B10
6926 B10
6927 E 8
7900 G 3

22DC449/62E - 22DC459/62E../62S
FRONT PWB LAYOUT



1902	H	4	6905	E	1
1903	I	4	6906	E	1
1904	J	4	6907	E	1
1905	G	4	6910	I	1
1906	E	4	6911	I	1
1907	G	4	6912	J	1
1908	D	4	6913	F	1
1909	D	4	6914	H	1
1912	F	4	6915	I	2
1913	B	4	6916	D	1
1914	C	4	6917	D	1
1915	B	4	6918	E	1
1917	D	4	6919	F	1
1918	G	4	6920	G	1
1919	A	4	6921	G	1
1924	I	4	6922	A	1
1925	G	1	3924	A	1
1927	I	3	6923	B	1
1930	H	4	6924	B	1
1931	J	4	6925	C	1
2901	F	1	6926	E	1
2902	G	1	6927	J	2
3904	G	1	6928	E	2
3905	G	1			
3906	G	1			
3907	G	1			
3908	G	1			
3909	H	1			
3910	H	1			
3913	J	2			
3914	J	2			
3915	J	1			
3916	J	1			
3917	I	2			
3918	I	2			
3919	E	1			
3920	E	1			
3921	H	1			
3922	H	1			
3923	F	1			
3925	B	1			
3926	E	2			
3927	E	2			
3928	I	2			
3929	I	2			
3930	I	2			
6900	H	1			
6901	H	1			
6902	H	1			
6904	E	1			

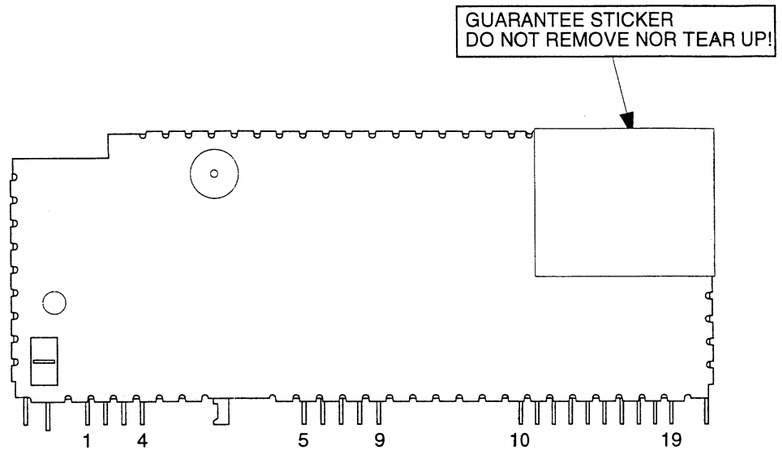
22DC449/62L - 22DC459/62F../62L../62Z
FRONT PWB LAYOUT



1900	A	4	6911	C	4
1902	C	2	6912	D	4
1903	B	2	6913	B	2
1904	A	2	6914	B	2
1905	D	2	6915	A	2
1906	F	2	6916	D	2
1907	E	2	6917	E	2
1908	H	2	6918	F	2
1909	G	1	6919	F	2
1912	F	2	6920	G	2
1913	J	2	6921	H	2
1914	I	2	6922	I	2
1915	J	2	6923	J	2
1917	G	2	6924	J	2
1918	E	1	6925	E	1
1919	D	4	6926	F	1
1924	B	2	6927	B	4
1925	D	1	7900	C	3
1927	B	3			
2901	B	3			
2902	D	2			
3904	C	3			
3905	F	2			
3906	E	2			
3907	C	2			
3908	C	2			
3909	C	2			
3910	C	2			
3913	B	4			
3914	B	4			
3915	C	4			
3916	C	4			
3917	A	2			
3918	A	2			
3919	F	2			
3920	F	2			
3921	H	2			
3922	H	2			
3923	C	3			
3924	I	2			
3925	I	2			
3926	F	1			
3927	F	1			
3928	B	3			
3929	B	4			
3930	B	4			
6900	C	2			
6901	C	2			
6902	C	2			
6903	C	2			
6904	C	2			
6905	C	2			
6906	C	2			
6907	B	3			
6910	C	2			

IC96 MODULE

Not reparable module. Do not open and do not try to repair yourself!



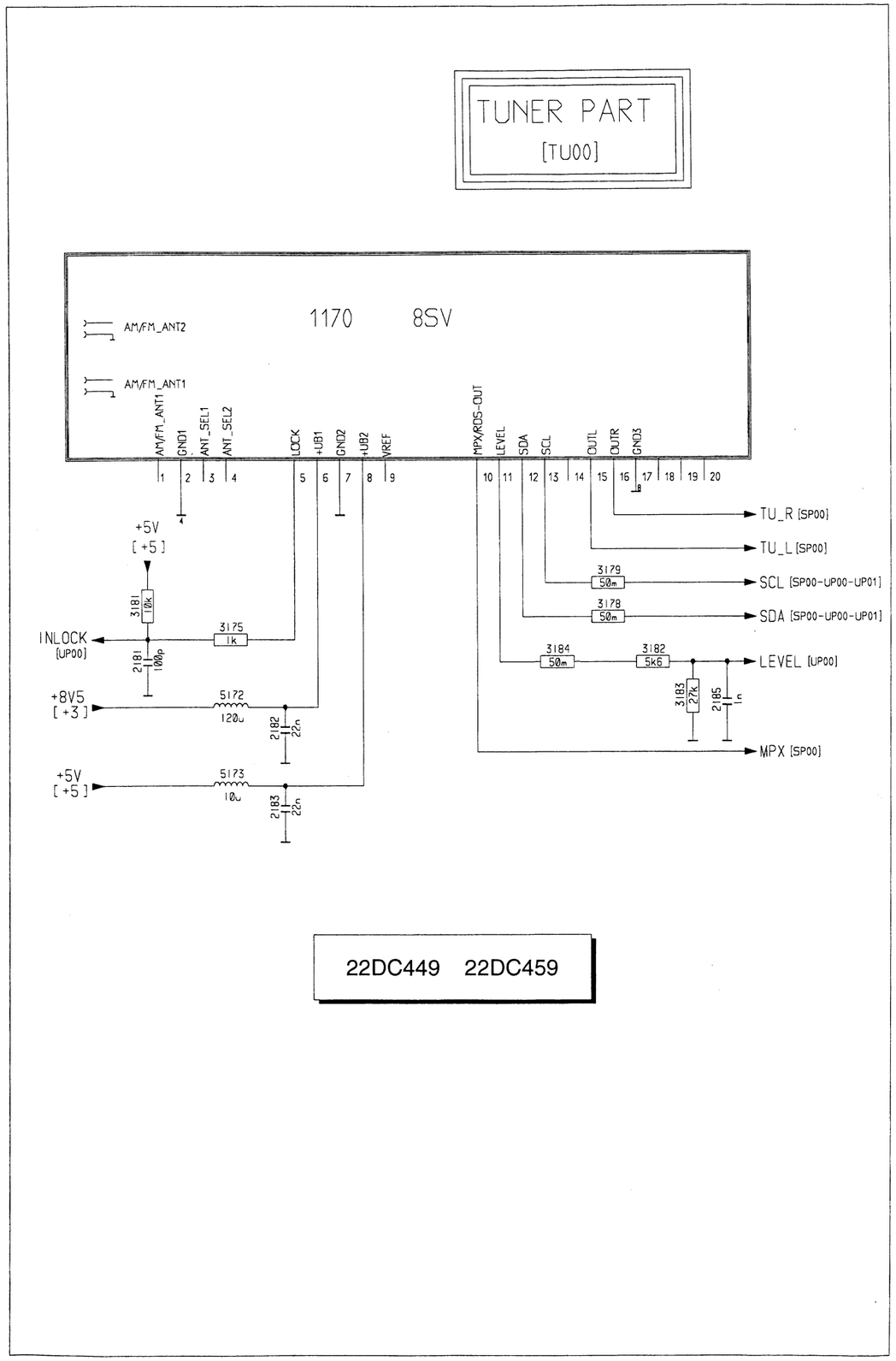
Connections

2	Ground	10	Multiplex / RDS output signal
		11	Level
		12	I^2C SDA
5	Inlock detector pin	13	I^2C SCL
6	Vcc 8.5V		
7	Ground	15	tuner output L
8	Vcc 5.0V	16	tuner output R
		17	Ground

Quick reference data:

1) AM part
- -Longwave/Mediumwave 144-1710 KHz (inclusive USA)
- -Shortwave 5850-6250 KHz - 49 meter band
- -AM double super concept
- -AM IF1 10.7MHz
- -AM IF2 450KHz
- -First VCO frequency above input signal frequency
- -Second X-tal oscillator frenquency below IF1
- -Usable sensivity α26dB MW = 14μV typ.

1) FM part
- -FM 87.5 - 108MHz
- -FM double super concept
- -FM IF1 72.2MHz
- -FM IF2 10.7MHz
- -First VCO frequency above input signal frequency
- -Second X-tal oscillator frequency below IF1
- -Usable sensivity α26dB =2.5μV typ.
- -THD 1mV δf=75KHz = 0.5% typ
- -Signal to noise ratio = 65dB typ
- -Locktime synthetizer <2mSec



22DC449 22DC459

POWER SUPPLY PART
[PS00]

22DC449 22DC459

7409 HEF4013BT

1 = 5.7V On - 0.0V Off
2 = 0.0V On - 5.7V Off
3 = 5.0V - 0.0V during On/Off key pressed
4 = 0.0V
5 = 2.0V
6 = GND

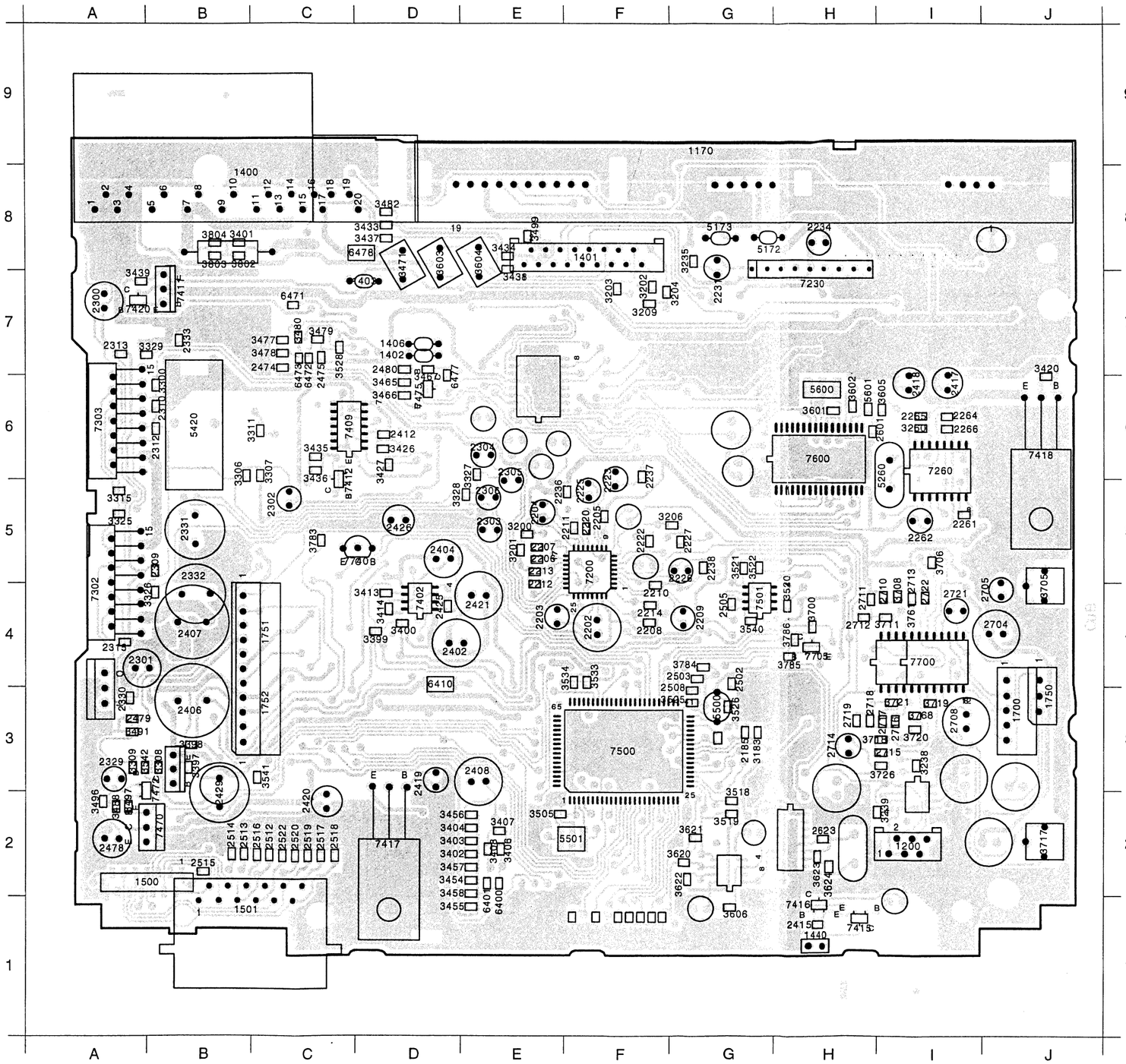
7402 L4949ED

1 = 13.2V
2 = 2.0V
3 = 6.0V
4 = 2.8V
5 = GND
6 = 5.0V
7 = 5.0V
8 = 5.0V

2402	J12
2403	I13
2404	I13
2405	I14
2406	F 2
2407	F 3
2408	H 6
2411	E 2
2412	C 3
2413	C 5
2414	A 4
2417	E13
2418	D14
2419	C13
2420	C14
2421	J12
2423	D 5
2424	A 2
2425	K12
2426	A 2
3402	F 4
3403	F 4
3404	F 4
3405	G 4
3406	G 6
3407	G 6
3408	G 6
3409	K11
3410	K11
3411	K11
3412	J11
3413	I15
3414	J15
3415	I 4
3420	E13
3421	C13
3422	D 2
3423	D 2
3424	E 3
3425	D 3
3426	C 3
3427	B 2
3428	J11
3429	C 6
3431	D 7
3432	D 8
3435	D 9
3436	D 8
3439	E 8
3440	C 6
3441	B 1
3443	A 1
3444	B 4
3454	F 4
3455	F 5
3456	F 5
3457	F 5
3458	F 5
3800	J11
3801	J11
3805	A 3
3806	A 2
5420	F 2
6400	F 6
6401	F 6
6403	I11
6404	F 3
6407	E13
6408	C13
6409	F 9
6412	B 6
7400	G 4
7401	G 6
7402	K14
7407	E 3
7409	C 4
7410	D 6
7411	F 8
7412	D 8
7413	A 4
7417	C13
7418	D13
7420	E 9
7421	A 3

MAIN PWB LAYOUT - TOP SIDE VIEW

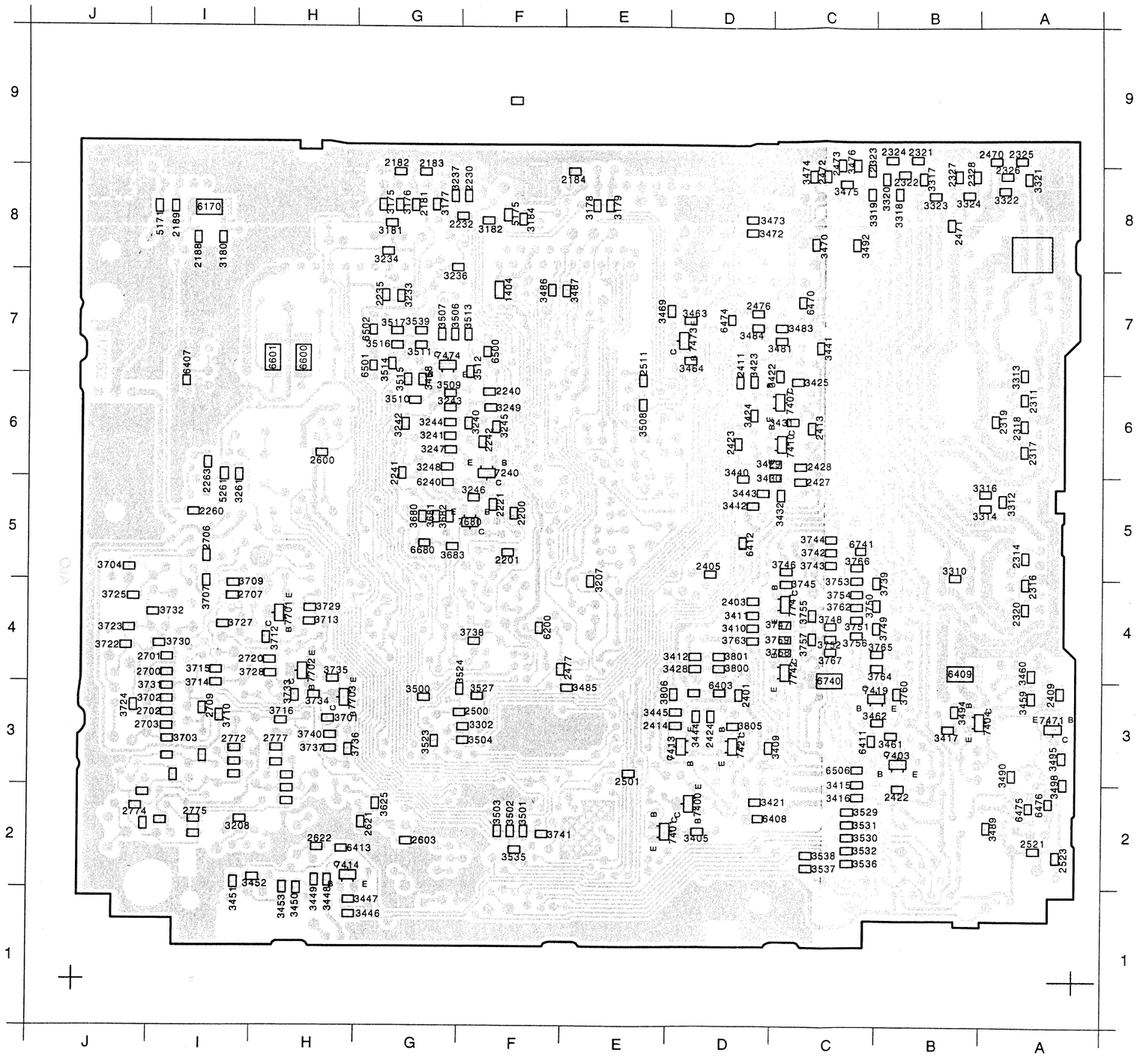
22DC449/62 22DC459/62



1170 G 8	2475 C 6	3435 C 5	6400 E 1
1200 I 2	2478 A 2	3436 C 5	6401 E 1
1400 B 8	2479 A 3	3437 D 8	6410 D 3
1401 F 7	2480 D 6	3438 E 7	6471 C 7
1402 D 6	2502 G 3	3439 A 7	6472 C 6
1403 D 7	2503 G 3	3454 E 1	6473 C 6
1406 D 7	2505 G 4	3455 E 1	6477 D 6
1440 H 1	2508 G 3	3456 E 2	6478 D 7
1500 A 1	2512 C 2	3457 E 2	7200 F 4
1501 B 1	2513 B 2	3458 E 1	7230 H 7
1700 J 3	2514 B 2	3465 D 6	7260 I 5
1750 J 3	2515 B 2	3466 D 6	7302 A 4
1751 B 3	2516 C 2	3467 D 6	7303 A 6
1752 B 3	2517 C 2	3471 D 7	7402 D 4
2185 G 3	2518 C 2	3477 C 7	7409 C 6
2202 F 4	2519 C 2	3478 C 6	7411 B 7
2203 E 4	2520 C 2	3479 C 7	7412 C 5
2204 E 5	2522 C 2	3480 C 7	7415 H 1
2205 F 5	2601 H 6	3482 D 8	7416 H 1
2206 E 4	2623 H 2	3488 A 2	7417 D 2
2207 E 5	2704 J 4	3491 A 3	7418 J 6
2208 F 4	2705 J 4	3496 A 2	7420 A 7
2209 G 4	2708 I 3	3497 A 2	7470 A 2
2210 F 4	2710 I 4	3499 E 8	7472 A 2
2211 F 5	2711 H 4	3505 E 2	7475 D 6
2212 E 4	2712 H 4	3518 G 2	7500 F 3
2213 E 4	2713 I 4	3519 G 2	7501 G 4
2214 F 4	2714 H 3	3520 H 4	7600 H 5
2220 F 5	2715 I 3	3521 G 4	7700 I 4
2222 F 5	2716 I 3	3522 G 4	7705 H 4
2223 F 5	2717 I 3	3525 G 3	7740 D 5
2225 F 5	2718 H 3	3526 G 3	
2226 G 4	2719 H 3	3528 C 7	
2227 G 5	2721 I 4	3533 F 3	
2231 G 7	2722 I 4	3534 F 3	
2234 H 8	3183 G 3	3540 G 4	
2236 F 5	3200 E 5	3541 C 2	
2237 F 5	3201 E 5	3542 A 2	
2238 G 4	3202 F 7	3601 H 6	
2261 I 5	3203 F 7	3602 H 6	
2262 I 5	3204 F 7	3603 D 7	
2264 I 6	3206 G 5	3604 E 7	
2265 I 6	3209 F 7	3605 I 6	
2266 I 6	3235 G 7	3606 G 1	
2300 A 7	3238 I 3	3620 G 2	
2301 A 3	3239 H 2	3621 G 2	
2302 C 5	3260 I 6	3622 G 1	
2303 E 5	3300 B 6	3623 H 2	
2304 E 6	3306 B 5	3624 H 2	
2305 E 5	3307 C 5	3700 H 4	
2306 E 5	3308 B 2	3705 J 4	
2309 B 4	3309 A 2	3706 I 4	
2310 B 6	3311 C 6	3708 I 4	
2312 B 6	3315 A 5	3711 I 4	
2313 A 6	3325 A 5	3717 J 2	
2315 A 4	3326 B 4	3718 I 3	
2329 A 2	3327 E 5	3719 I 3	
2330 A 3	3328 E 5	3720 I 3	
2331 B 5	3329 A 6	3721 I 3	
2332 B 4	3397 B 2	3726 I 3	
2333 B 7	3398 B 3	3761 I 4	
2402 D 4	3399 D 4	3768 I 3	
2404 D 5	3400 D 4	3783 C 5	
2406 B 3	3401 B 8	3784 G 3	
2407 B 4	3402 E 2	3785 H 4	
2408 E 2	3403 E 2	3786 H 4	
2412 D 6	3404 E 2	3802 B 7	
2415 H 1	3406 E 2	3803 B 7	
2417 I 6	3407 E 2	3804 B 8	
2418 I 6	3408 E 2	5172 G 8	
2419 D 2	3413 D 4	5173 G 8	
2420 C 2	3414 D 4	5260 I 5	
2421 E 4	3420 J 6	5420 B 6	
2425 D 4	3426 D 6	5500 G 3	
2426 D 5	3427 D 5	5501 F 2	
2429 B 2	3433 D 8	5600 H 6	
2474 C 6	3434 E 7	5601 H 6	

MAIN PWB LAYOUT - BOTTOM SIDE VIEW

22DC449/62 22DC459/62



1404 F 7 3180 I 8 3470 C 8 3736 H 3 7474 G 6
2181 G 8 3181 G 8 3472 D 8 3737 H 3 7680 G 5
2182 G 8 3182 F 8 3473 D 8 3738 G 4 7701 H 4
2183 G 8 3184 F 8 3474 C 8 3739 C 4 7702 H 3
2184 F 8 3207 E 4 3475 C 8 3740 H 3 7703 H 3

2188 I 8 3208 I 2 3476 C 8 3741 F 2 7741 D 4
2189 I 8 3233 G 7 3481 D 7 3742 C 5 7742 D 3
2200 F 5 3234 G 7 3483 D 7 3743 C 4
2201 F 5 3236 G 7 3484 D 7 3744 C 5
2221 F 5 3237 G 8 3485 F 3 3745 D 4

2230 G 8 3240 G 6 3486 F 7 3746 D 4
2232 G 8 3241 G 6 3487 F 7 3747 D 4
2235 G 7 3242 G 6 3489 B 2 3748 C 4
2240 F 6 3243 G 6 3490 A 2 3749 C 4
2241 G 5 3244 G 6 3492 C 8 3750 C 4

2242 G 6 3245 F 6 3494 B 3 3751 C 4
2260 I 5 3246 G 5 3495 A 3 3752 C 4
2263 I 5 3247 G 6 3498 A 2 3753 C 4
2311 A 6 3248 G 5 3500 G 3 3754 C 4
2314 A 4 3249 F 6 3501 F 2 3755 C 4

2316 A 4 3261 I 5 3502 F 2 3756 C 4
2317 A 6 3302 G 3 3503 F 2 3757 C 4
2318 A 6 3310 B 4 3504 G 3 3758 D 4
2319 B 6 3312 B 5 3506 G 7 3759 D 4
2320 A 4 3313 A 6 3507 G 7 3760 C 3

2321 B 8 3314 B 5 3508 E 6 3762 C 4
2322 B 8 3316 B 5 3509 G 6 3763 D 4
2323 C 8 3317 B 8 3510 G 6 3764 C 3
2324 C 8 3318 C 8 3511 G 7 3765 C 4
2325 A 8 3319 C 8 3512 G 6 3766 C 4

2326 A 8 3320 C 8 3513 G 7 3767 C 4
2327 B 8 3321 A 8 3514 G 6 3800 D 3
2328 B 8 3322 A 8 3515 G 6 3801 D 4
2401 D 3 3323 B 8 3516 G 7 3805 D 3
2403 D 4 3324 B 8 3517 G 7 3806 E 3

2405 D 4 3405 D 2 3523 G 3 3807 D 5
2409 A 3 3409 D 3 3524 G 3 5171 J 8
2411 D 6 3410 D 4 3527 G 3 5175 F 8
2413 C 6 3411 D 4 3529 C 2 5261 I 5
2414 E 3 3412 D 4 3530 C 2 6170 I 8

2422 C 2 3415 C 2 3531 C 2 6200 F 4
2423 D 6 3416 C 2 3532 C 2 6240 G 5
2424 D 3 3417 B 3 3535 F 2 6402 D 3
2427 C 5 3418 D 3 3536 C 2 6403 D 3
2428 C 5 3419 D 3 3537 C 1 6407 I 6

2470 B 8 3421 D 2 3538 C 2 6408 D 2
2471 B 8 3422 D 6 3539 G 7 6409 B 3
2472 C 8 3423 D 6 3625 H 2 6411 C 3
2473 C 8 3424 D 6 3680 G 5 6412 D 5
2476 D 7 3425 C 6 3681 G 5 6413 H 2

2477 F 3 3428 D 3 3682 G 5 6470 C 7
2500 G 3 3429 D 5 3683 G 5 6474 D 7
2501 E 2 3430 D 5 3701 H 3 6475 A 2
2511 E 6 3431 D 6 3702 J 3 6476 A 2
2521 A 2 3432 D 5 3703 J 3 6500 F 6

2523 A 2 3440 D 5 3704 J 4 6501 H 6
2600 H 6 3441 C 7 3707 I 4 6502 H 7
2603 G 2 3442 D 5 3709 I 4 6506 C 2
2621 H 2 3443 D 5 3710 I 3 6600 H 6
2622 H 2 3444 D 3 3712 I 4 6601 I 6

2700 J 3 3445 E 3 3713 H 4 6680 G 5
2701 J 4 3446 H 1 3714 I 3 6740 C 3
2702 J 3 3447 H 1 3715 I 3 6741 C 5
2703 J 3 3448 H 1 3716 H 3 7240 F 5
2706 I 4 3449 H 1 3722 J 4 7400 E 2

2707 I 4 3450 H 1 3723 J 4 7401 E 2
2709 I 3 3451 I 1 3724 J 3 7403 C 2
2720 I 3 3452 I 1 3725 J 4 7404 B 3
2772 I 3 3453 H 1 3727 I 4 7407 D 6
2774 J 2 3459 A 3 3728 I 3 7410 D 6

2775 I 2 3460 A 3 3729 H 4 7413 E 3
2777 H 3 3461 C 3 3730 J 4 7414 H 1
3175 G 8 3462 C 3 3731 J 3 7414 H 1
3176 G 8 3463 E 7 3732 J 4 7419 C 3
3177 G 8 3464 E 6 3733 H 3 7421 D 3

3178 E 8 3468 G 6 3734 H 3 7471 A 3
3179 E 8 3469 E 7 3735 H 3 7473 E 7

22DC449 22DC459

POWER SUPPLY PART [PS01]

1400
1 — B8 [PA00]
2 — B7 [PA00]
3 — POWER [PS00]
4 — INFO [PS00]
5 — B5 [PA00]
6 — B6 [PA00]
7 — B4 [PA00]
8 — B3 [PA00]
9 — B1 [PA00]
10 — B2 [PA00]
11 — A2
12 — A1
13 — A6 [PS01]
14 — +ANTENNA — 6478 ISR154-400 — 3471 3R3 — +14V4 [+2]
15 — A3 [PS01]
16 — 3472 100 — GATEWAY_SCL [UP00]
17 — 3473 100 — GATEWAY_SDA [UP00]

2470 100p
2471 100p

+14V4 [+2] — 3498 4k7 — 7470 2SD2039 — V_LAMP [UP00]
7472 BC857B; 3496 22k; 2478 1u 47V; 6475 UDZ 7.5B; 3495 100k; 3490 56k
7471 BC847B — 3492 100k — A6 [PS01]
2479 1n; 3491 33k

+14V4 [+1] — 7473 BC857B — 3469 100 — RC4_EXT_SCL [UP00]; RC6_EXT_SDA [UP00]; RC2_RADIO_ON
3463 22k
+5V [+4] — 3464 4k7; 3465 47k
+5V [+4] — 7474 BC857B — +5V [+6]; 3468 22k
6477 BAS216 — 3467 4k7 — RC3_EXT_MRQ [UP00]
7475 BC847
2480 22n
3466 10k — +5V [+4]
EXT_I2C_ON [UP00]

1404 1,5A

D2B-
D2B+
+14V4 [+PERM]
INREF
INL
INR

ONLY 459/62E ../62L ../62Z

A6 [PS01] — +ILLUM — 6470 BAS216 — PILOT_LIGHT [UP00]
2472 100p

A3 [PS01] — 3474 5Ω — TELEPHONE [UP00]
2473 1u

1400 A 1
1401 C16
1404 I15
2470 B 1
2471 C 3
2472 J 5
2473 J10
2478 B 5
2479 C 8
2480 H 9
3463 F10
3464 G10
3465 G 9
3466 H10
3467 G11
3468 G11
3469 F13
3471 G 2
3472 H 2
3473 H 2
3474 J 9
3488 A 5
3490 B 6
3491 C 8
3492 B 9
3495 B 6
3496 B 5
6470 J 5
6471 I 6
6475 B 6
6477 G10
6478 G 2
7470 A 6
7471 B 7
7472 B 6
7473 F10
7474 G12
7475 H10

MICRO CONTROLER PART
[UP00]

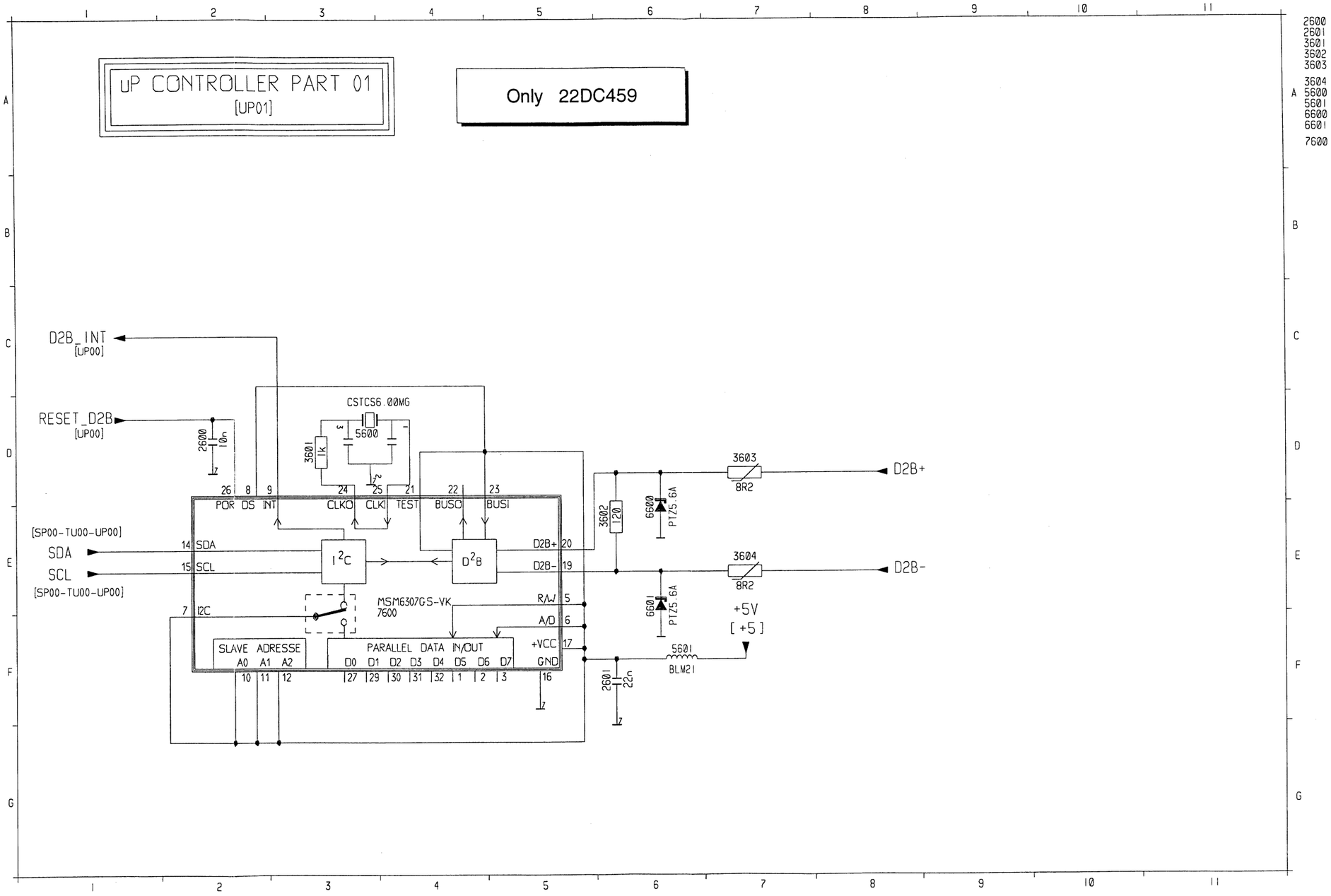
22DC449 22DC459

1 = GND	31 = 4.9V
2 = X-TAL out, 8.00MHz	32 = 4.9V
3 = X-TAL in, 8.00MHz	33 = Depending on syntho
4 = RESET. See diagram	34 = 0.5V
5 = 5.0V SDA	35 = 5.0V
6 = 5.0V SCL	36 = 5.0v
7 = GND	37 = 4.8v
8 = 5.0V	38 = GND
9 = 5.0V	39 = 5.0V
10 = 5.0V	40 = 4.8V
11 = 0.0V Norm - 5.0V Rev	41 = 0.0V
12 = 0.0V	42 = 0.0V
13 = 5.0V - 0.0V cass On	43 = 5.0V
14 = 0.0V	44 = 5.0V
15 = 4.8V	45 = 0.0V
16 = 0.0V - 0.7V cass On	46 = N.C.
17 = 2.6V	47 = 0.0V
18 = 5.0V	48 = 0.0V
19 = 0.0V	49 = 5.0V
20 = Data RDS	50-51 = N.C.
21 = 5.0V	52 = 0.0V
22 = 5.0V	53 to 56 = N.C.
23 = 5.0V	57 Tel mute = 0.0V
24 = 5.0V	58 = 5.0V
25 = 4.8V SCL	59 = 5.0V
26 = 4.9V SDA	60 = 5.0V
27 = 5.0V	61 to 76 = N.C.
28 = 5.0V	77 = GND
29 = 4.7V	78 to 80 = N.C.
30 = 3.7V	

uP CONTROLLER PART 01
[UP01]

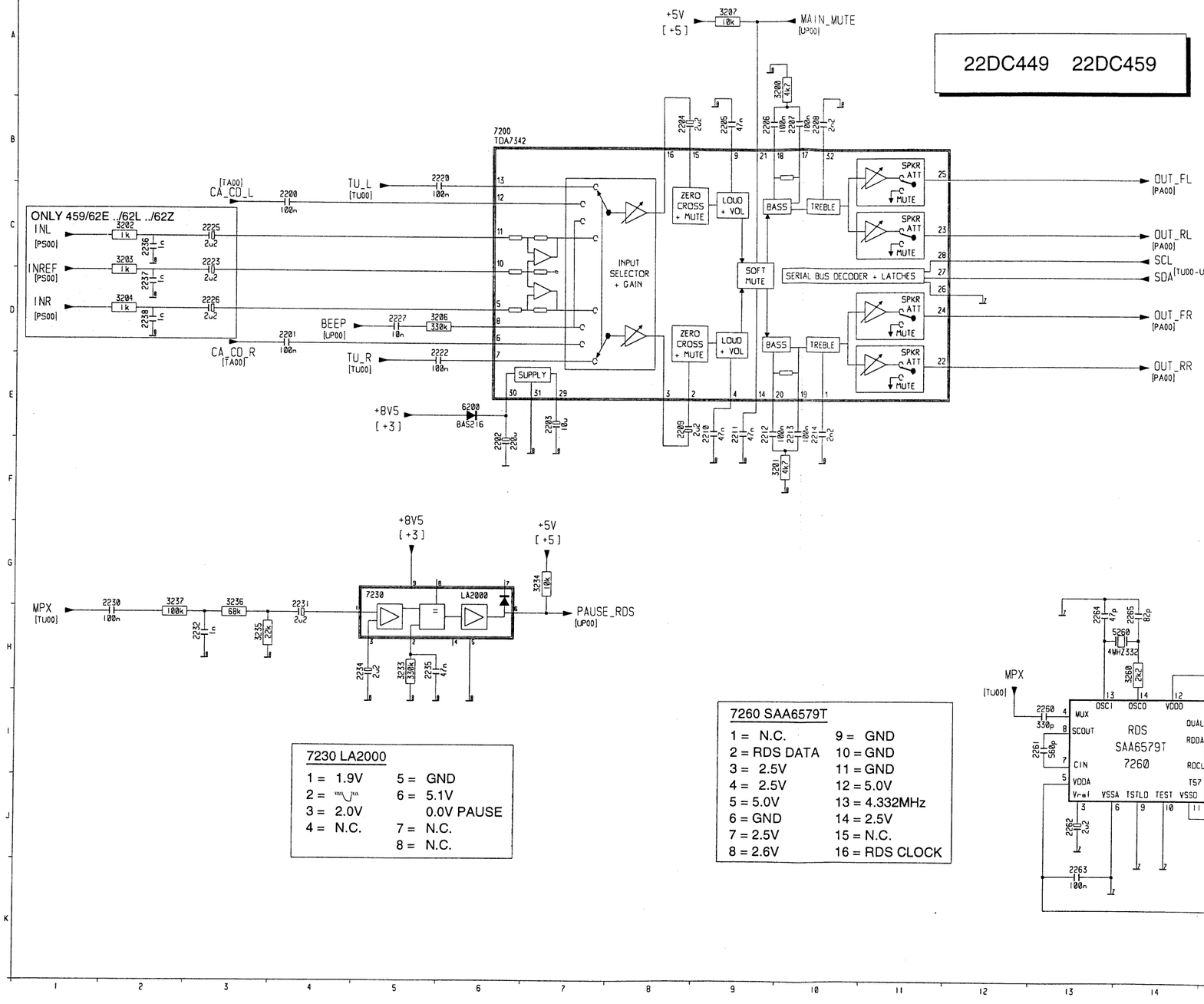
Only 22DC459

2600	D	2
2601	F	6
3601	D	3
3602	E	6
3603	D	7
3604	E	7
5600	D	3
5601	F	6
6600	E	6
6601	E	6
7600	F	3



22DC449 22DC459

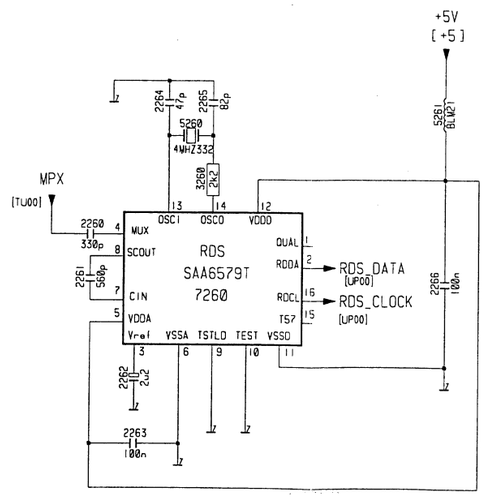
SOUND PROCESS PART [SP00]



7200 TDA7342	
1 = 4.0V	17 = 4.0V
2 = 4.0V	18 = 4.0V
3 = 4.0V	19 = 4.0V
4 = 4.0V	20 = 4.0V
5 = 4.0V	21 = 5.0V
6 = 4.0V	22 = 3.3V
7 = 4.0V	23 = 3.3V
8 = 4.0V	24 = 3.3V
9 = 4.0V	25 = 3.3V
10 = 4.0V	26 = GND
11 = 4.0V	27 = 5.0V
12 = 4.0V	28 = 5.0V
13 = 4.0V	29 = 4.0V
14 = 7.2V	30 = 7.9V
15 = 4.0V	31 = GND
16 = 4.0V	32 = 4.0V

7230 LA2000	
1 = 1.9V	5 = GND
2 =	6 = 5.1V
3 = 2.0V	0.0V PAUSE
4 = N.C.	7 = N.C.
	8 = N.C.

7260 SAA6579T	
1 = N.C.	9 = GND
2 = RDS DATA	10 = GND
3 = 2.5V	11 = GND
4 = 2.5V	12 = 5.0V
5 = 5.0V	13 = 4.332MHz
6 = GND	14 = 2.5V
7 = 2.5V	15 = N.C.
8 = 2.6V	16 = RDS CLOCK



2200 C 4
2201 D 4
2202 F 6
2203 E 7
2204 B 8
2205 B 9
2206 B 9
2207 B10
2208 B10
2209 E 8
2210 E 9
2211 E 9
2212 E 9
2213 E10
2214 E10
2220 B 5
2222 E 5
2223 C 3
2225 C 3
2226 D 3
2227 D 5
2230 H 2
2231 H 4
2232 H 3
2234 H 5
2235 H 5
2236 C 2
2237 D 2
2238 D 2
2260 I13
2261 I13
2262 J13
2263 K13
2264 H13
2265 H14
2266 I16
3200 A 9
3201 F 9
3202 C 2
3203 C 2
3204 D 2
3206 D 5
3207 A 9
3233 H 5
3234 G 7
3235 H 3
3236 G 3
3237 G 2
3260 H14
5260 H14
5261 H16
6200 E 6
7200 B 6
7230 G 5
7260 I14

TAPE PART
[TA00]

Only 22DC449

CA_CD_L
[SP01]

CA_CD_R
[SP01]

+8V5
[+3]

3776 470

3775 330k

2772 10n

7770

WC4558 IDT

2773 100u

3777 10n

3780 330k

3774 12k

3779 12k

3722 47R

3773 12k

2771 100u

3772 10k

3778 47R

3777 12k

2776 100u

82p 2774

82p 2775

2770 100u

3771 10K

3729 10K

+5V
[+5]

DOLBY_ON
[PS00-uP00]

3737 10K

+5V
[+5]

WSS_ON
[UP00]

CONNECTOR DECK

1750

CDS36

L-FRWD

R-FRWD

CA_STOP_CRST

CA_TRACK

3740 15K

3741 56R

+5V
[+5]

3747 47K

7741 BC847B

3745 2k2

3746 2k2

+14V4
[+2]

3739 56R

3744 470

3743 4R7

3742 4R7

7740 BC636

+5V
[+5]

3751 10K

+5V
[+5]

3749 1K

ME_FE_SW
[TA01]

1751

CA_PLAY_INSERT
[uP00]

3754 56R

CA_MUTE_MRQ_CD
[uP00]

3768 180K

3731 56R

3732 56R

3730 56R

3733 56R

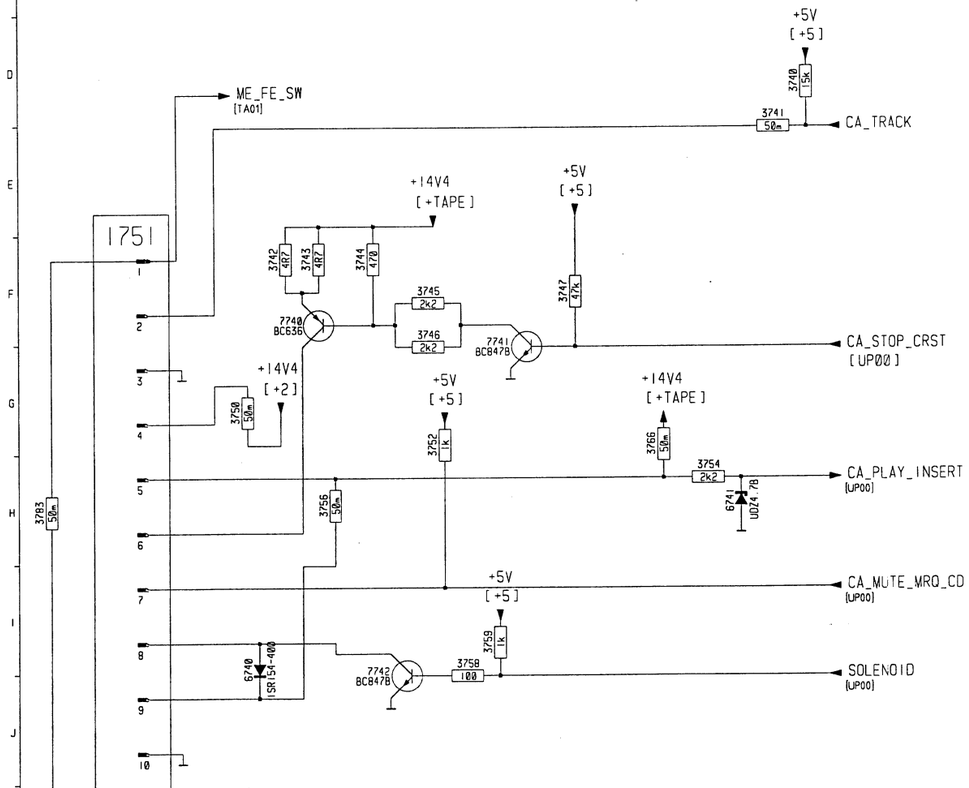
M700 M701 M702 M703 M704

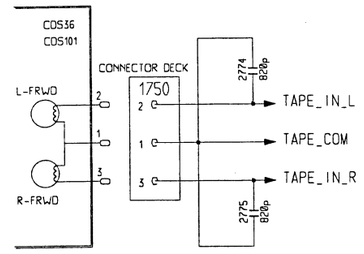
M700 to M704 = test-points
used in productions

Only 22DC459

TAPE PART [TA00]

	1750	E11
	1751	E 1
	2774	E12
	2775	F12
	3740	D 7
A	3741	D 7
	3742	F 3
	3743	F 3
	3744	F 3
	3745	F 4
	3746	F 4
	3747	F 5
	3750	G 2
	3752	G 4
	3754	H 6
B	3756	H 3
	3758	I 4
	3759	I 4
	3766	G 6
	3783	H 1
	6740	I 2
	6741	H 7
	7740	F 3
	7741	G 5
C	7742	J 4





Only 22DC459

TAPE PART 01
[TA01]

M700 to M704 = test-points
used in productions

ME_FE_SW [TA00]
ME_FE [UP00]
PAUSE_MSS [UP00]
TAPE_IN_L [TA00]
TAPE_COM [TA00]
TAPE_IN_R [TA00]
DOLBY_ON [PS00-UP00]
CA_CD_R [SP00]
CA_CD_L [SP00]
MSS_ON [UP00]

TEA0675T/N2
7700B

PRE AMP
EQ AMP
POWER SUPPLY
LOGIC
DOLBY B
AMS PROCESSOR
LATCH AND RISE TIME
DELAY TIME
LEVEL DETECTOR

INB2 HS INB1 GND EQFB EQB AMSEQ SCB HPB CONTRB INTB OUTB
INAZ VREF INA1 VCC EQFA EQA TD SCA HPA CONTRA INTA OUTA

2702	E 2
2703	F 2
2704	E 3
2705	B 3
2706	B 6
2707	B 8
2708	B 9
2709	B10
2710	C 8
2711	C 9
2712	C 9
2713	D 8
2714	I 3
2715	J 5
2716	H 8
2717	I 8
2718	I 8
2719	I 9
2720	J 8
2721	D 4
2722	D 5
3700	B 3
3704	B 4
3705	B 5
3706	B 6
3707	B 6
3708	C 5
3709	C 5
3710	B 9
3711	C 9
3712	D12
3713	D13
3714	I 5
3715	I 5
3716	J 4
3717	J 5
3718	J 6
3719	J 6
3720	H 7
3721	I 8
3722	H 2
3723	H 2
3724	I 2
3729	D14
3733	I11
3734	I12
3735	I12
3736	I13
3737	I14
3738	A 1
3768	H 7
3784	A 1
3785	A 2
7700	F 4
7701	D12
7702	I11
7703	J12
7705	A 2

Only 22DC449

POWER AMPLIFIER PART

[PA00]

PA_STBY
[UP00]

+5V
[+5]

3307 47k

3306 1k

2302 10n

B1 [PS01] RR

M306 B2 [PS01]

M305 B3 [PS01] FR

B4 [PS01]

2331 10 1n

2332 10 1n

+5V
[+5]

3302 4k7

TEMP_SENSE
[UP00]

+14V4
[+1]

PA_STBY
[UP00]

2319 100n

2317 100n

TDA7375

OUT_FL
[SP00]

2303 2u2

3316 1K

2313 4n7

2312 4n7

OUT_FR
[SP00]

2306 2u2

3315 1K

2311 4n7

2310 4n7

7303

2330 47u

B5 [PS01] FL

B6 [PS01]

B7 [PS01] RL

B8 [PS01]

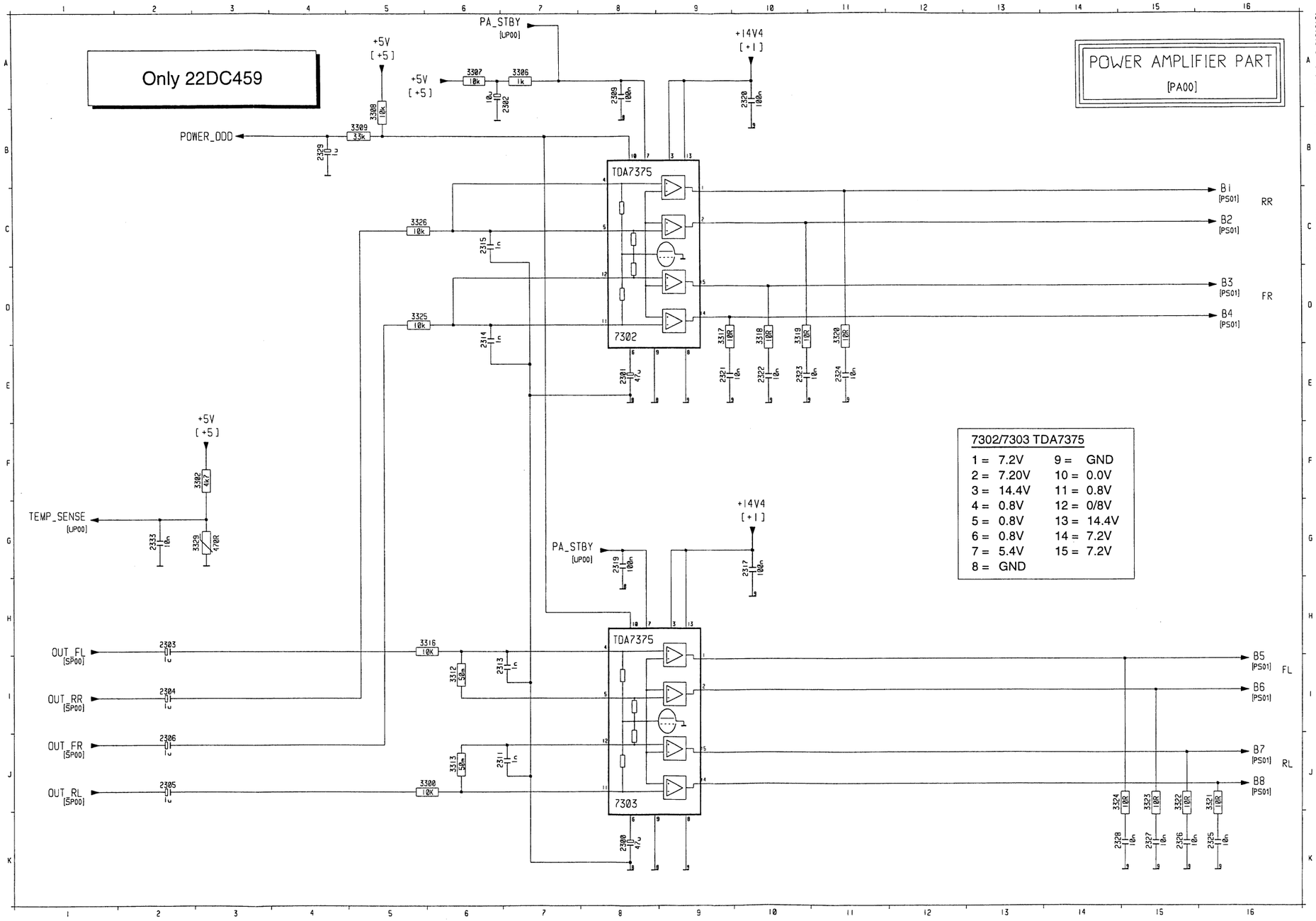
3324 10R

3322 10R

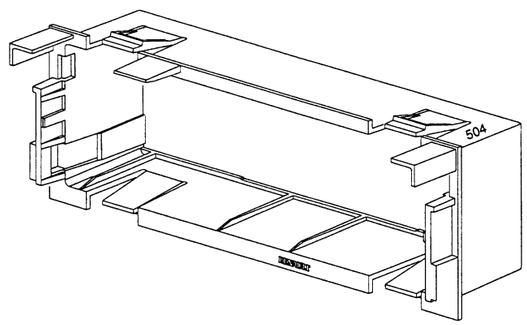
2328 10n

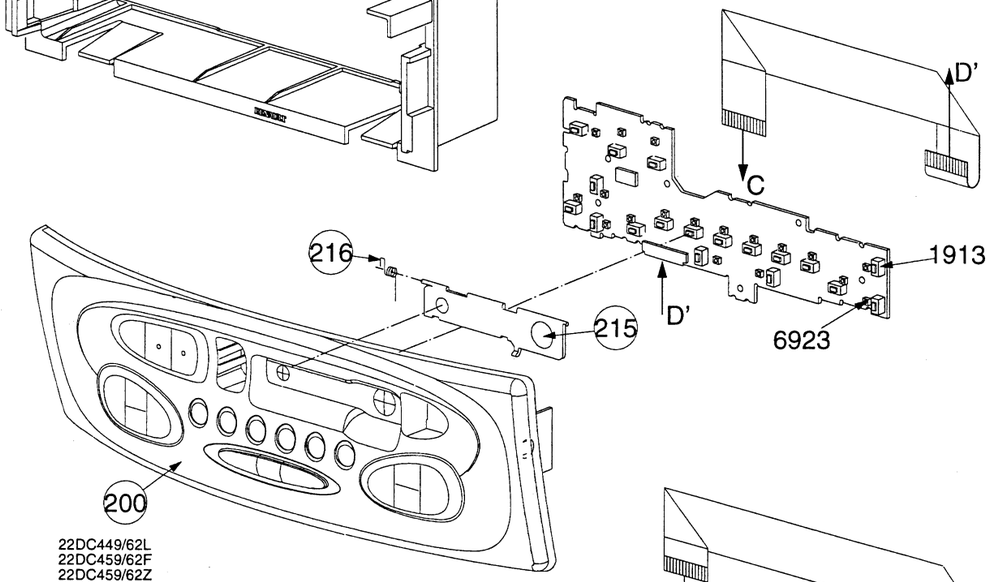
2326 10n

2300 K 8
2302 B 7
2303 H 2
2306 J 2
2310 J 6
2311 J 6
2312 I 6
2313 I 6
2317 G10
2319 G 8
2326 K15
2328 K14
2331 D14
2332 E13
3302 F 3
3306 A 7
3307 A 6
3315 J 6
3316 H 6
3322 J15
3324 J14
7303 J 8

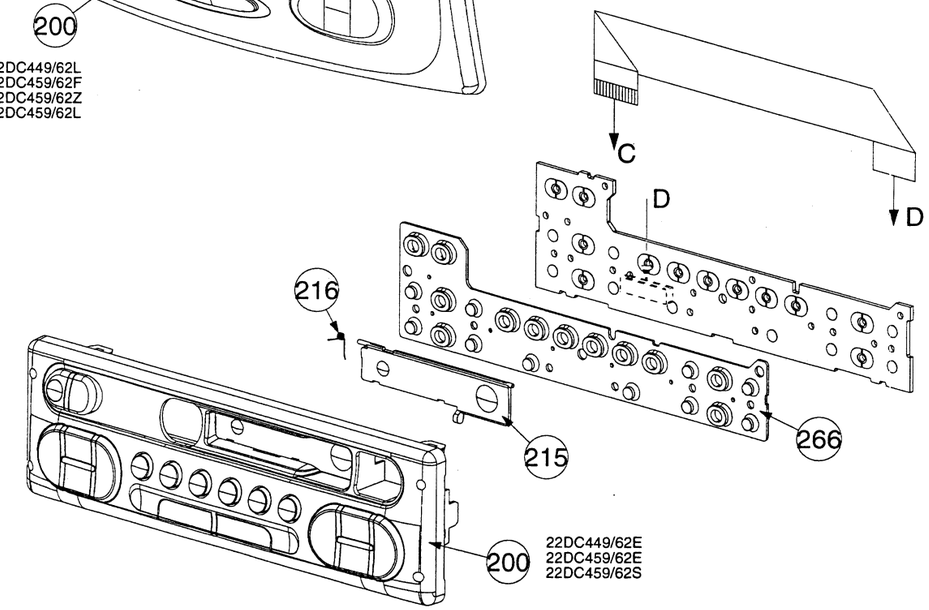

Only 22DC459
POWER AMPLIFIER PART
[PA00]
PA_STBY
[UP00]
+5V
[+5]
+14V4
[+1]
POWER_ODD
TDA7375
7302
B1
[PS01]
RR
B2
[PS01]
B3
[PS01]
FR
B4
[PS01]
7302/7303 TDA7375
1 = 7.2V
2 = 7.20V
3 = 14.4V
4 = 0.8V
5 = 0.8V
6 = 0.8V
7 = 5.4V
8 = GND
9 = GND
10 = 0.0V
11 = 0.8V
12 = 0/8V
13 = 14.4V
14 = 7.2V
15 = 7.2V
TEMP_SENSE
[UP00]
OUT_FL
[SP00]
OUT_RR
[SP00]
OUT_FR
[SP00]
OUT_RL
[SP00]
7303
B5
[PS01]
FL
B6
[PS01]
B7
[PS01]
RL
B8
[PS01]

22DC449/62E 22DC449/62L
22DC459/62E 22DC459/62F
22DC459/62L 22DC459/62S
22DC459/62Z

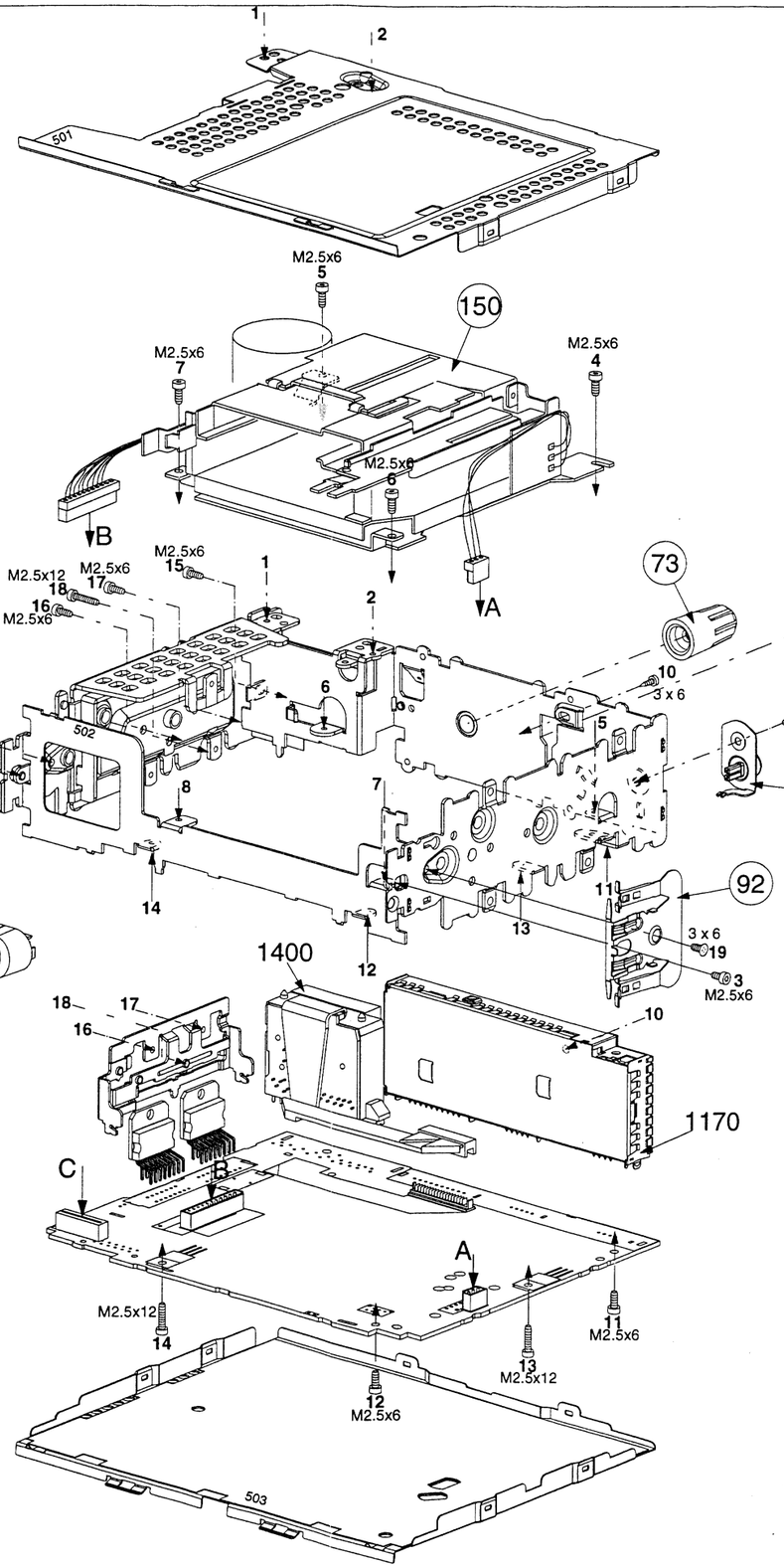




22DC449/62L
22DC459/62F
22DC459/62Z
22DC459/62L



22DC449/62E
22DC459/62E
22DC459/62S



ITEM	SERVICE CODE	DESCRIPTION	DC449/62L	DC449/62E	DC459/62F	DC459/62L	DC459/62Z	DC459/62E	DC459/62S
73	4822 462 11019	BUFFER MOUNTING	1		1	1	1		
	4822 532 12177	BUFFER MOUNTING		1				1	1
92	4822 492 71523	SPRING MOUNTING	2		2	2	2		
	4822 492 71124	SPRING MOUNTING		2				2	2
115	4822 265 10717	CONNECTOR AERIAL ASSY	1	1	1	1	1	1	1
150	4822 691 10456	TAPE DECK CDS36	1	1					
	4822 691 10678	TAPE DECK CDS101Y PF2			1	1	1	1	1
200	4822 459 04245	ORNAMENTAL PLATE ASSY	1						
	4822 459 04899	ORNAMENTAL PLATE ASSY		1					
	4822 459 04183	ORNAMENTAL PLATE ASSY			1				
	4822 459 04184	ORNAMENTAL PLATE ASSY				1			
	4822 459 04897	ORNAMENTAL PLATE ASSY					1		
	4822 459 04896	ORNAMENTAL PLATE ASSY						1	
	4822 459 04904	ORNAMENTAL PLATE ASSY							1

ITEM	SERVICE CODE	DESCRIPTION	DC449/62L	DC449/62E	DC459/62F	DC459/62L	DC459/62Z	DC459/62E	DC459/62S
205	4822 410 11679	DECK BUTTONS ASSY	1						
	4822 410 10602	DECK BUTTONS ASSY			1	1	1		
	4822 410 11682	DECK BUTTONS ASSY		1				1	1
215	4822 443 10386	FLAP CASSETTE	1						
	4822 443 10883	FLAP CASSETTE		1					
	4822 443 10316	FLAP CASSETTE			1	1	1		
	4822 443 10388	FLAP CASSETTE						1	
	4822 443 10389	FLAP CASSETTE							1
216	4822 492 71033	SPRING FLAP CASSETTE	1		1	1	1		
	4822 492 42231	SPRING FLAP CASSETTE		1				1	1
241	4822 320 12249	FLEX FOIL	1		1	1	1		
	4822 320 12251	FLEX FOIL		1				1	1
266	4822 466 11792	SWITCH-MAT		1				1	1
375	4822 736 15919	DIRECTIONS FOR USE	1		1	1	1		
	4822 736 15925	DIRECTIONS FOR USE		1				1	1

Miscellaneous			DC449/62L	DC449/62E	DC459/62F	DC459/62L	DC459/62Z	DC459/62E	DC459/62S
1170	4822 210 10741	TUNER IC96 8SV	1	1	1	1	1	1	1
1400	4822 265 11212	CONN. BLOCK A4-7W-ABD	1	1					
1400	4822 265 11213	CONN. BLOCK A4-20W-ABD			1				1
1400	4822 265 11217	CONN. BLOCK A4-20W-ABC10D				1	1	1	
1404	4822 252 51164	FUSE 1,50A 32V 3,2X1,6X1,2				1	1	1	
1751	4822 265 11111	CONNECTOR (11P)	1	1	1	1	1	1	1
1900	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1902	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1903	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1904	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1905	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1906	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1907	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1908	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1909	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1912	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1913	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1914	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1915	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1917	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1918	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1919	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1924	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
1927	4822 276 13948	SWI TACT SM 160G SKQMAH	1		1	1	1		
2181	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
⊣⊢									
2182	5322 122 32654	22NF10%X7R 63V	1	1	1	1	1	1	1
2183	5322 122 32654	22NF10%X7R 63V	1	1	1	1	1	1	1
2185	5322 122 34123	1NF10%X7R 50V	1	1	1	1	1	1	1
2200	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2201	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2202	4822 124 23582	220UF 10V	1	1	1	1	1	1	1
2203	4822 124 41017	10UF 16V	1	1	1	1	1	1	1
2204	4822 124 23504	2.2UF20% 50V	1	1	1	1	1	1	1
2205	4822 126 13343	47NF10% X7R 25V	1	1	1	1	1	1	1
2206	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2207	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2208	4822 122 33127	2,2NF10%X7R 63V	1	1	1	1	1	1	1
2209	4822 124 23504	2.2UF20% 50V	1	1	1	1	1	1	1
2210	4822 126 13343	47NF10% X7R 25V	1	1	1	1	1	1	1
2211	4822 126 13343	47NF10% X7R 25V	1	1	1	1	1	1	1
2212	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2213	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2214	4822 122 33127	2,2NF10%X7R 63V	1	1	1	1	1	1	1
2220	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2222	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2223	4822 124 23504	2.2UF20% 50V				1	1	1	
2225	4822 124 23504	2.2UF20% 50V				1	1	1	
2226	4822 124 23504	2.2UF20% 50V				1	1	1	
2227	5322 122 34098	10NF10%X7R 63V	1	1	1	1	1	1	1
2230	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2231	4822 124 23504	2.2UF20% 50V	1	1	1	1	1	1	1
2232	5322 122 34123	1NF10%X7R 50V	1	1	1	1	1	1	1
2234	4822 124 23504	2.2UF20% 50V	1	1	1	1	1	1	1
2235	4822 126 13343	47NF10% X7R 25V	1	1	1	1	1	1	1
2236	5322 122 34123	1NF10%X7R 50V				1	1	1	
2237	5322 122 34123	1NF10%X7R 50V				1	1	1	

⊣⊢			DC449/62L	DC449/62E	DC459/62F	DC459/62L	DC459/62Z	DC459/62E	DC459/62S
2238	5322 122 34123	1NF10%X7R 50V				1	1	1	
2260	5322 122 31863	330PF 5%NP0 50V	1	1	1	1	1	1	1
2261	5322 116 80853	560PF 5%NP0 63V	1	1	1	1	1	1	1
2262	4822 124 23504	2.2UF20% 50V	1	1	1	1	1	1	1
2263	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2264	4822 126 13692	47PF 1% NP0 63V	1	1	1	1	1	1	1
2265	4822 126 13695	82PF 1% NP0 63V	1	1	1	1	1	1	1
2266	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2300	4822 124 22646	47UF20% 16V	1	1	1	1	1	1	1
2301	4822 124 22646	47UF20% 16V			1	1	1	1	1
2302	4822 124 41017	10UF 16V	1	1	1	1	1	1	1
2303	4822 124 23282	1UF20% 50V	1	1	1	1	1	1	1
2304	4822 124 23282	1UF20% 50V	1	1	1	1	1	1	1
2305	4822 124 23282	1UF20% 50V			1	1	1	1	1
2306	4822 124 23282	1UF20% 50V	1	1	1	1	1	1	1
2309	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R			1	1	1	1	1
2310	5322 126 10223	4,7NF10%X7R 63V	1	1					
2311	5322 122 34123	1NF10%X7R 50V			1	1	1	1	1
2311	5322 126 10223	4,7NF10%X7R 63V	1	1					
2312	5322 126 10223	4,7NF10%X7R 63V	1	1					
2313	5322 122 34123	1NF10%X7R 50V			1	1	1	1	1
2313	5322 126 10223	4,7NF10%X7R 63V	1	1					
2314	5322 122 34123	1NF10%X7R 50V			1	1	1	1	1
2315	5322 122 34123	1NF10%X7R 50V			1	1	1	1	1
2317	4822 126 13196	0805 X7R 25V 100N PM10	1	1	1	1	1	1	1
2319	4822 126 13196	0805 X7R 25V 100N PM10	1	1	1	1	1	1	1
2320	4822 126 13196	0805 X7R 25V 100N PM10			1	1	1	1	1
2321	5322 122 34098	10NF10%X7R 63V			1	1	1	1	1
2322	5322 122 34098	10NF10%X7R 63V			1	1	1	1	1
2323	5322 122 34098	10NF10%X7R 63V			1	1	1	1	1
2324	5322 122 34098	10NF10%X7R 63V			1	1	1	1	1
2325	5322 122 34098	10NF10%X7R 63V			1	1	1	1	1
2326	5322 122 34098	10NF10%X7R 63V	1	1	1	1	1	1	1
2327	5322 122 34098	10NF10%X7R 63V			1	1	1	1	1
2328	5322 122 34098	10NF10%X7R 63V	1	1	1	1	1	1	1
2329	4822 124 23282	1UF20% 50V			1	1	1	1	1
2331	4822 124 80061	1000UF20% 25V	1	1					
2332	4822 124 80061	1000UF20% 25V	1	1					
2333	5322 122 34098	10NF10%X7R 63V			1	1	1	1	1
2402	4822 124 11952	100UF 20% 16V	1	1	1	1	1	1	1
2403	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2404	4822 124 22646	47UF20% 16V	1	1	1	1	1	1	1
2405	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2406	4822 124 80769	2200UF20% 16V	1	1	1	1	1	1	1
2407	4822 124 80769	2200UF20% 16V			1	1	1	1	1
2408	4822 124 11952	100UF 20% 16V	1	1	1	1	1	1	1
2411	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2412	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2413	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2414	4822 126 12105	33NF 5%X7R 63V	1	1	1	1	1	1	1
2417	4822 124 23279	22UF20% 16V	1	1	1	1	1	1	1
2418	4822 124 23279	22UF20% 16V	1	1	1	1	1	1	1
2419	4822 124 41017	10UF 16V	1	1	1	1	1	1	1
2420	4822 124 23279	22UF20% 16V	1	1	1	1	1	1	1
2421	4822 124 11952	100UF 20% 16V	1	1	1	1	1	1	1
2423	5322 122 34098	10NF10%X7R 63V	1	1	1	1	1	1	1
2424	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R	1	1	1	1	1	1	1
2425	5322 122 34098	10NF10%X7R 63V	1	1	1	1	1	1	1

			DC449/62L	DC449/62E	DC459/62F	DC459/62L	DC459/62Z	DC459/62E	DC459/62S
2426	4822 124 23279	22UF20% 16V	1	1	1	1	1	1	1
2470	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2471	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2472	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2473	5322 122 34123	1NF10%X7R 50V	1	1	1	1	1	1	1
2478	4822 124 22646	47UF20% 16V	1	1	1	1	1	1	1
2479	5322 122 34098	10NF10%X7R 63V	1	1	1	1	1	1	1
2480	5322 122 32654	22NF10%X7R 63V	1	1	1	1	1	1	1
2500	5322 122 32654	22NF10%X7R 63V	1	1	1	1	1	1	1
2501	5322 122 34098	10NF10%X7R 63V	1	1	1	1	1	1	1
2502	5322 122 32654	22NF10%X7R 63V	1	1	1	1	1	1	1
2503	5322 122 34123	1NF10%X7R 50V	1	1	1	1	1	1	1
2505	5322 122 32654	22NF10%X7R 63V	1	1	1	1	1	1	1
2508	5322 122 34123	1NF10%X7R 50V	1	1	1	1	1	1	1
2512	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2513	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2514	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2515	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2516	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2518	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2519	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2520	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2521	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2522	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2523	5322 122 32531	100PF 5%NP0 50V	1	1	1	1	1	1	1
2600	5322 122 34098	10NF10%X7R 63V				1	1	1	
2601	5322 122 32654	22NF10%X7R 63V				1	1	1	
2702	5322 122 32268	4822 124 23279			1	1	1	1	1
2703	5322 122 32268	4822 124 23279			1	1	1	1	1
2704	4822 124 11952	100UF 20% 16V			1	1	1	1	1
2705	4822 124 41017	10UF 16V			1	1	1	1	1
2706	5322 122 34098	10NF10%X7R 63V			1	1	1	1	1
2707	5322 126 10223	4,7NF10%X7R 63V			1	1	1	1	1
2708	4822 124 11952	100UF 20% 16V			1	1	1	1	1
2709	5322 122 32654	22NF10%X7R 63V			1	1	1	1	1
2710	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R			1	1	1	1	1
2711	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R			1	1	1	1	1
2712	4822 126 13849	220NF 10% 16V			1	1	1	1	1
2713	4822 126 13188	15NF 5% X7R 63V			1	1	1	1	1
2714	4822 124 41017	10UF 16V			1	1	1	1	1
2715	5322 122 34098	10NF10%X7R 63V			1	1	1	1	1
2716	4822 126 13188	15NF 5% X7R 63V			1	1	1	1	1
2717	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R			1	1	1	1	1
2718	4822 126 13196	CER2 0805 X7R 25V 100N PM10 R			1	1	1	1	1
2719	4822 126 13849	220NF 10% 16V			1	1	1	1	1
2720	5322 126 10223	4,7NF10%X7R 63V			1	1	1	1	1
2721	4822 124 41017	10UF 16V			1	1	1	1	1
2722	5322 122 32531	100PF 5%NP0 50V			1	1	1	1	1
2770	4822 124 11952	100UF 20% 16V	1	1					
2771	4822 124 11952	100UF 20% 16V	1	1					
2772	5322 122 34098	10NF10%X7R 63V	1	1					
2773	4822 124 11952	100UF 20% 16V	1	1					
2774	5322 126 10184	680P 5% NPO 50V	1	1	1	1	1	1	1
2775	5322 126 10184	680P 5% NPO 50V	1	1	1	1	1	1	1
2776	4822 124 11952	100UF 20%-16V	1	1					
2777	5322 122 34098	10NF10%X7R 63V	1	1					
2901	5322 122 32654	22NF10%X7R 63V	1	1	1	1	1	1	1
2902	5322 122 32654	22NF10%X7R 63V	1	1	1	1	1	1	1

			DC449/62L	DC449/62E	DC459/62F	DC459/62L	DC459/62Z	DC459/62E	DC459/62S
3175	4822 051 20102	1K00 5% 0,1W	1	1	1	1	1	1	1
3178	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3179	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3181	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3182	4822 051 20562	5K60 5% 0,1W	1	1	1	1	1	1	1
3183	4822 051 20273	27K00 5% 0,1W	1	1	1	1	1	1	1
3184	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3200	4822 051 20472	4K70 5% 0,1W	1	1	1	1	1	1	1
3201	4822 051 20472	4K70 5% 0,1W	1	1	1	1	1	1	1
3202	4822 051 20102	1K00 5% 0,1W				1	1	1	
3203	4822 051 20102	1K00 5% 0,1W				1	1	1	
3204	4822 051 20102	1K00 5% 0,1W				1	1	1	
3206	4822 051 20334	330K00 5% 0,1W	1	1	1	1	1	1	1
3207	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3233	4822 051 20334	330K00 5% 0,1W	1	1	1	1	1	1	1
3234	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3235	4822 051 20223	22K00 5% 0,1W	1	1	1	1	1	1	1
3236	4822 051 20683	68K00 5% 0,1W	1	1	1	1	1	1	1
3237	4822 051 20104	100K00 5% 0,1W	1	1	1	1	1	1	1
3260	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3300	4822 117 10833	10K 1% 0,1W				1	1	1	1
3302	4822 051 20472	4K70 5% 0,1W	1	1	1	1	1	1	1
3306	4822 051 20102	1K00 5% 0,1W	1	1	1	1	1	1	1
3307	4822 117 10833	10K 1% 0,1W				1	1	1	1
3307	4822 117 10834	47K 1% 0,1W	1	1					
3308	4822 117 10833	10K 1% 0,1W				1	1	1	1
3309	4822 051 20333	33K00 5% 0,1W				1	1	1	1
3312	4822 051 20008	0R00 JUMP. (0805)				1	1	1	1
3313	4822 051 20008	0R00 JUMP. (0805)				1	1	1	1
3315	4822 051 20102	1K00 5% 0,1W	1	1					
3316	4822 051 20102	1K00 5% 0,1W	1	1					
3316	4822 117 10833	10K 1% 0,1W				1	1	1	1
3317	4822 051 20109	10R00 5% 0,1W				1	1	1	1
3318	4822 051 20109	10R00 5% 0,1W				1	1	1	1
3319	4822 051 20109	10R00 5% 0,1W				1	1	1	1
3320	4822 051 20109	10R00 5% 0,1W				1	1	1	1
3321	4822 051 20109	10R00 5% 0,1W				1	1	1	1
3322	4822 051 20109	10R00 5% 0,1W	1	1	1	1	1	1	1
3323	4822 051 20109	10R00 5% 0,1W				1	1	1	1
3324	4822 051 20109	10R00 5% 0,1W	1	1	1	1	1	1	1
3325	4822 117 10833	10K 1% 0,1W				1	1	1	1
3326	4822 117 10833	10K 1% 0,1W				1	1	1	1
3329	4822 116 10062	470R 50% 16V PTC 0805				1	1	1	1
3402	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3403	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3404	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3405	4822 051 20472	4K70 5% 0,1W	1	1	1	1	1	1	1
3406	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3407	4822 051 20104	100K00 5% 0,1W	1	1	1	1	1	1	1
3408	4822 051 20102	1K00 5% 0,1W	1	1	1	1	1	1	1
3409	4822 051 20104	100K00 5% 0,1W	1	1	1	1	1	1	1
3410	4822 051 20333	33K00 5% 0,1W	1	1	1	1	1	1	1
3411	4822 051 20393	39K00 5% 0,1W	1	1	1	1	1	1	1
3412	4822 051 20229	22R00 5% 0,1W	1	1	1	1	1	1	1
3413	4822 117 10834	47K 1% 0,1W	1	1	1	1	1	1	1
3414	4822 117 10834	47K 1% 0,1W	1	1	1	1	1	1	1

			DC449/62L	DC449/62E	DC459/62F	DC459/62L	DC459/62Z	DC459/62E	DC459/62S
3415	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3420	4822 051 20681	680R00 5% 0,1W	1	1	1	1	1	1	1
3421	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3422	4822 051 20224	220K00 5% 0,1W	1	1	1	1	1	1	1
3423	4822 051 20474	470K00 5% 0,1W	1	1	1	1	1	1	1
3424	4822 051 20184	180K00 5% 0,1W	1	1	1	1	1	1	1
3425	4822 051 20224	220K00 5% 0,1W	1	1	1	1	1	1	1
3426	4822 051 20392	3K90 5% 0,1W	1	1	1	1	1	1	1
3427	4822 051 20223	22K00 5% 0,1W	1	1	1	1	1	1	1
3428	4822 051 20229	22R00 5% 0,1W	1	1	1	1	1	1	1
3429	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3431	4822 051 20104	100K00 5% 0,1W	1	1	1	1	1	1	1
3432	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3435	4822 051 20472	4K70 5% 0,1W	1	1	1	1	1	1	1
3436	4822 051 20472	4K70 5% 0,1W	1	1	1	1	1	1	1
3439	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3440	4822 117 10834	47K 1% 0,1W	1	1	1	1	1	1	1
3441	4822 117 10965	18K 1% 0,1W	1	1	1	1	1	1	1
3443	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3444	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3454	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3455	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3456	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3457	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3458	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3463	4822 051 20223	22K00 5% 0,1W	1	1	1	1	1	1	1
3464	4822 051 20472	4K70 5% 0,1W	1	1	1	1	1	1	1
3465	4822 117 10834	47K 1% 0,1W	1	1	1	1	1	1	1
3466	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3467	4822 051 20472	4K70 5% 0,1W	1	1	1	1	1	1	1
3468	4822 051 20223	22K00 5% 0,1W	1	1	1	1	1	1	1
3469	4822 051 20101	100R00 5% 0,1W	1	1	1	1	1	1	1
3471	4822 116 40267	3R3 25% 20V	1	1	1	1	1	1	1
3472	4822 051 20101	100R00 5% 0,1W	1	1	1	1	1	1	1
3473	4822 051 20101	100R00 5% 0,1W	1	1	1	1	1	1	1
3474	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3488	4822 051 20472	4K70 5% 0,1W	1	1	1	1	1	1	1
3490	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3491	4822 051 20333	33K00 5% 0,1W	1	1	1	1	1	1	1
3492	4822 051 20104	100K00 5% 0,1W	1	1	1	1	1	1	1
3495	4822 051 20104	100K00 5% 0,1W	1	1	1	1	1	1	1
3496	4822 051 20223	22K00 5% 0,1W	1	1	1	1	1	1	1
3500	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3501	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3502	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3503	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3504	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3505	4822 051 20102	1K00 5% 0,1W	1	1	1	1	1	1	1
3506	4822 051 20153	15K00 5% 0,1W	1	1	1	1	1	1	1
3507	4822 051 20153	15K00 5% 0,1W	1	1	1	1	1	1	1
3512	4822 117 11503	220R 1% 0.1W	1	1	1	1	1	1	1
3513	4822 051 20331	330R00 5% 0,1W	1	1	1	1	1	1	1
3514	4822 051 20331	330R00 5% 0,1W	1	1	1	1	1	1	1
3515	4822 117 11503	220R 1% 0.1W	1	1	1	1	1	1	1
3516	4822 117 11503	220R 1% 0.1W	1	1	1	1	1	1	1
3517	4822 051 20331	330R00 5% 0,1W	1	1	1	1	1	1	1
3518	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3519	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1

			DC449/62L	DC449/62E	DC459/62F	DC459/62L	DC459/62Z	DC459/62E	DC459/62S
3520	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3521	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3522	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3523	4822 051 20223	22K00 5% 0,1W	1	1	1	1	1	1	1
3524	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3525	4822 051 20109	10R00 5% 0,1W	1	1	1	1	1	1	1
3527	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3528	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3529	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3530	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3531	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3532	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3533	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3534	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3535	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3536	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3537	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3538	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3539	4822 051 20153	15K00 5% 0,1W	1	1	1	1	1	1	1
3540	4822 051 20109	10R00 5% 0,1W	1	1	1	1	1	1	1
3541	4822 117 10834	47K 1% 0,1W	1	1	1	1	1	1	1
3542	4822 117 10833	10K 1% 0,1W	1	1					
3601	4822 051 20102	1K00 5% 0,1W			1	1	1	1	1
3602	4822 051 20121	120R00 5% 0,1W			1	1	1	1	1
3603	4822 116 10063	8,2R 25% 30V PTC			1	1	1	1	1
3604	4822 116 10063	8,2R 25% 30V PTC			1	1	1	1	1
3680	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3681	4822 051 20104	100K00 5% 0,1W	1	1	1	1	1	1	1
3682	4822 051 20333	33K00 5% 0,1W	1	1	1	1	1	1	1
3683	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3700	4822 117 10965	18K 1% 0,1W			1	1	1	1	1
3704	4822 051 20471	470R00 5% 0,1W			1	1	1	1	1
3705	4822 101 11187	1K 30%LIN 0,1W			1	1	1	1	1
3706	4822 051 20334	330K00 5% 0,1W			1	1	1	1	1
3707	4822 051 20822	8K20 5% 0,1W			1	1	1	1	1
3708	4822 051 20184	180K00 5% 0,1W			1	1	1	1	1
3709	4822 117 10507	24K 1% 0.1W			1	1	1	1	1
3710	4822 051 20109	10R00 5% 0,1W			1	1	1	1	1
3711	4822 051 20274	270K00 5% 0,1W			1	1	1	1	1
3712	4822 117 11139	1K5 1% 0,1W			1	1	1	1	1
3713	4822 117 10834	47K 1% 0,1W			1	1	1	1	1
3714	4822 051 20184	180K00 5% 0,1W			1	1	1	1	1
3715	4822 117 10507	24K 1% 0.1W			1	1	1	1	1
3716	4822 051 20471	470R00 5% 0,1W			1	1	1	1	1
3717	4822 101 11187	1K 30%LIN 0,1W			1	1	1	1	1
3718	4822 051 20822	8K20 5% 0,1W			1	1	1	1	1
3719	4822 051 20334	330K00 5% 0,1W			1	1	1	1	1
3720	4822 051 20684	680K00 5% 0,1W			1	1	1	1	1
3721	4822 051 20274	270K00 5% 0,1W			1	1	1	1	1
3722	4822 051 20008	0R00 JUMP. (0805)			1	1	1	1	1
3723	4822 051 20008	0R00 JUMP. (0805)			1	1	1	1	1
3724	4822 051 20008	0R00 JUMP. (0805)			1	1	1	1	1
3729	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3730	4822 051 20008	0R00 JUMP. (0805)	1	1					
3731	4822 051 20008	0R00 JUMP. (0805)	1	1					
3732	4822 051 20008	0R00 JUMP. (0805)	1	1					
3733	4822 117 11139	1K5 1% 0,1W			1	1	1	1	1
3734	4822 117 10834	47K 1% 0,1W			1	1	1	1	1

			DC449/62L	DC449/62E	DC459/62F	DC459/62L	DC459/62Z	DC459/62E	DC459/62S
3735	4822 117 10833	10K 1% 0,1W			1	1	1	1	1
3736	4822 117 10834	47K 1% 0,1W			1	1	1	1	1
3737	4822 117 10833	10K 1% 0,1W	1	1	1	1	1	1	1
3738	4822 051 20008	0R00 JUMP. (0805)			1	1	1	1	1
3739	4822 051 20008	0R00 JUMP. (0805)	1	1					
3740	4822 051 20153	15K00 5% 0,1W	1	1	1	1	1	1	1
3741	4822 051 20008	0R00 JUMP. (0805)	1	1	1	1	1	1	1
3742	4822 051 20478	4R70 5% 0,1W	1	1	1	1	1	1	1
3743	4822 051 20478	4R70 5% 0,1W	1	1	1	1	1	1	1
3744	4822 051 20471	470R00 5% 0,1W	1	1	1	1	1	1	1
3745	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3746	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3747	4822 117 10834	47K 1% 0,1W	1	1	1	1	1	1	1
3749	4822 051 20102	1K00 5% 0,1W	1	1					
3750	4822 051 20008	0R00 JUMP. (0805)			1	1	1	1	1
3751	4822 117 10833	10K 1% 0,1W	1	1					
3752	4822 051 20102	1K00 5% 0,1W			1	1	1	1	1
3754	4822 051 20008	0R00 JUMP. (0805)	1	1					
3754	4822 117 11449	2K2 1% 0,1W			1	1	1	1	1
3756	4822 051 20008	0R00 JUMP. (0805)			1	1	1	1	1
3758	4822 051 20101	100R00 5% 0,1W			1	1	1	1	1
3759	4822 051 20102	1K00 5% 0,1W			1	1	1	1	1
3760	4822 051 20104	100K00 5% 0,1W	1	1					
3766	4822 051 20008	0R00 JUMP. (0805)			1	1	1	1	1
3768	4822 051 20008	0R00 JUMP. (0805)			1	1	1	1	1
3770	4822 117 10833	10K 1% 0,1W	1	1					
3771	4822 117 10833	10K 1% 0,1W	1	1					
3772	4822 051 20479	47R00 5% 0,1W	1	1					
3773	4822 117 11383	12K 1% 0,1W	1	1					
3774	4822 117 11383	12K 1% 0,1W	1	1					
3775	4822 051 20334	330K00 5% 0,1W	1	1					
3776	4822 051 20471	470R00 5% 0,1W	1	1					
3777	4822 117 11383	12K 1% 0,1W	1	1					
3778	4822 051 20479	47R00 5% 0,1W	1	1					
3779	4822 117 11383	12K 1% 0,1W	1	1					
3780	4822 051 20334	330K00 5% 0,1W	1	1					
3783	4822 051 20008	0R00 JUMP. (0805)			1	1	1	1	1
3784	4822 117 10833	10K 1% 0,1W			1	1	1	1	1
3785	4822 117 10834	47K 1% 0,1W			1	1	1	1	1
3800	4822 051 20229	22R00 5% 0,1W	1	1	1	1	1	1	1
3801	4822 051 20229	22R00 5% 0,1W	1	1	1	1	1	1	1
3805	4822 051 20223	22K00 5% 0,1W	1	1	1	1	1	1	1
3806	4822 051 20223	22K00 5% 0,1W	1	1	1	1	1	1	1
3904	4822 051 20223	22K00 5% 0,1W	1	1	1	1	1	1	1
3905	4822 051 20223	22K00 5% 0,1W	1	1	1	1	1	1	1
3906	4822 051 20223	22K00 5% 0,1W	1	1	1	1	1	1	1
3907	4822 051 20223	22K00 5% 0,1W	1	1	1	1	1	1	1
3908	4822 117 11503	220R 1% 0.1W	1	1	1	1	1	1	1
3909	4822 117 11503	220R 1% 0.1W	1	1	1	1	1	1	1
3910	4822 117 11503	220R 1% 0.1W	1	1	1	1	1	1	1
3913	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3914	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3915	4822 051 20681	680R00 5% 0,1W	1	1	1	1	1	1	1
3916	4822 051 20471	470R00 5% 0,1W		1				1	1
3916	4822 051 20681	680R00 5% 0,1W	1		1	1	1		
3917	4822 051 20681	680R00 5% 0,1W	1	1	1	1	1	1	1
3918	4822 051 20471	470R00 5% 0,1W		1				1	1
3918	4822 051 20681	680R00 5% 0,1W	1		1	1	1		

			DC449/62L	DC449/62E	DC459/62F	DC459/62L	DC459/62Z	DC459/62E	DC459/62S
3919	4822 051 20102	1K00 5% 0,1W	1		1	1	1		
3919	4822 051 20681	680R00 5% 0,1W		1				1	1
3920	4822 051 20122	1K20 5% 0,1W	1		1	1	1		
3920	4822 051 20471	470R00 5% 0,1W		1				1	1
3921	4822 051 20102	1K00 5% 0,1W	1		1	1	1		
3921	4822 051 20681	680R00 5% 0,1W		1				1	1
3922	4822 051 20122	1K20 5% 0,1W	1		1	1	1		
3922	4822 051 20471	470R00 5% 0,1W		1				1	1
3923	4822 051 20101	100R00 5% 0,1W	1	1	1	1	1	1	1
3924	4822 051 20681	680R00 5% 0,1W	1	1	1	1	1	1	1
3925	4822 051 20471	470R00 5% 0,1W		1				1	1
3925	4822 051 20681	680R00 5% 0,1W	1		1	1	1		
3926	4822 051 20681	680R00 5% 0,1W	1	1	1	1	1	1	1
3927	4822 051 20471	470R00 5% 0,1W		1				1	1
3927	4822 051 20681	680R00 5% 0,1W	1		1	1	1		
3928	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3929	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
3930	4822 117 11449	2K2 1% 0,1W	1	1	1	1	1	1	1
5172	4822 157 10975	120UH 10%	1	1	1	1	1	1	1
5173	4822 157 71184	10UH 10%	1	1	1	1	1	1	1
5260	4822 242 80259	LN-G38-311 (4,332MHZ)	1	1	1	1	1	1	1
5261	4822 157 71206	BLM21A10PT	1	1	1	1	1	1	1
5420	4822 157 70839	COIL ASSY 160UH 5A	1	1					
5420	4822 157 70935	COIL ASSY 97UH 10A			1	1	1	1	1
5500	4822 157 11207	EL0405RA-102K-3	1	1	1	1	1	1	1
5501	4822 242 10753	CSTCS8,00MT-TC	1	1	1	1	1	1	1
5600	4822 242 10709	CSTCS6.00MG-TC				1	1	1	
5601	4822 157 71206	BLM21A10PT				1	1	1	
6200	4822 130 83757	BAS216	1	1	1	1	1	1	1
6400	4822 130 83757	BAS216	1	1	1	1	1	1	1
6401	4822 130 83757	BAS216	1	1	1	1	1	1	1
6403	4822 130 83757	BAS216	1	1	1	1	1	1	1
6404	4822 130 10488	S3G	1	1	1	1	1	1	1
6407	4822 130 10877	UDZ9.1B	1	1	1	1	1	1	1
6408	4822 130 10185	UDZ5.6B	1	1	1	1	1	1	1
6409	4822 130 10655	1SR154-400	1	1	1	1	1	1	1
6412	4822 130 83757	BAS216	1	1	1	1	1	1	1
6470	4822 130 83757	BAS216	1	1	1	1	1	1	1
6470	4822 130 83757	BAS216	1	1	1	1	1	1	1
6475	4822 130 11149	UDZ13B	1	1	1	1	1	1	1
6477	4822 130 83757	BAS216	1	1	1	1	1	1	1
6478	4822 130 10655	1SR154-400	1	1	1	1	1	1	1
6500	4822 130 10185	UDZ5.6B	1	1	1	1	1	1	1
6501	4822 130 10185	UDZ5.6B	1	1	1	1	1	1	1
6502	4822 130 10185	UDZ5.6B	1	1	1	1	1	1	1
6506	4822 130 83757	BAS216	1	1	1	1	1	1	1
6600	4822 130 10657	PTZ5.6A				1	1	1	
6601	4822 130 10657	PTZ5.6A				1	1	1	
6680	4822 130 83757	BAS216	1	1	1	1	1	1	1
6740	4822 130 10655	1SR154-400			1	1	1	1	1
6741	4822 130 11148	UDZ4.7B			1	1	1	1	1
6900	4822 130 10185	UDZ5.6B	1	1	1	1	1	1	1
6901	4822 130 10185	UDZ5.6B	1	1	1	1	1	1	1
6902	4822 130 10185	UDZ5.6B	1	1	1	1	1	1	1
6903	4822 130 83757	BAS216	1	1	1	1	1	1	1

			DC449/62L	DC449/62E	DC459/62F	DC459/62L	DC459/62Z	DC459/62E	DC459/62S
6904	4822 130 83757	BAS216	1	1	1	1	1	1	1
6905	4822 130 83757	BAS216	1	1	1	1	1	1	1
6906	4822 130 83757	BAS216	1	1	1	1	1	1	1
6907	4822 130 83757	BAS216	1	1	1	1	1	1	1
6910	4822 130 10417	LOT670-JK	1		1	1	1		
6910	4822 130 11153	LOT770-JK		1				1	1
6911	4822 130 10417	LOT670-JK	1		1	1	1		
6911	4822 130 11153	LOT770-JK		1				1	1
6912	4822 130 10417	LOT670-JK	1		1	1	1		
6912	4822 130 11153	LOT770-JK		1				1	1
6913	4822 130 10417	LOT670-JK	1		1	1	1		
6913	4822 130 11153	LOT770-JK		1				1	1
6914	4822 130 10417	LOT670-JK	1		1	1	1		
6914	4822 130 11153	LOT770-JK		1				1	1
6915	4822 130 10417	LOT670-JK	1		1	1	1		
6915	4822 130 11153	LOT770-JK		1				1	1
6916	4822 130 10417	LOT670-JK	1		1	1	1		
6916	4822 130 11153	LOT770-JK		1				1	1
6917	4822 130 10417	LOT670-JK	1		1	1	1		
6917	4822 130 11153	LOT770-JK		1				1	1
6918	4822 130 10417	LOT670-JK	1		1	1	1		
6918	4822 130 11153	LOT770-JK		1				1	1
6919	4822 130 10417	LOT670-JK	1		1	1	1		
6919	4822 130 11153	LOT770-JK		1				1	1
6920	4822 130 10417	LOT670-JK	1		1	1	1		
6920	4822 130 11153	LOT770-JK		1				1	1
6921	4822 130 10417	LOT670-JK	1		1	1	1		
6921	4822 130 11153	LOT770-JK		1				1	1
6922	4822 130 10417	LOT670-JK	1		1	1	1		
6922	4822 130 11153	LOT770-JK		1				1	1
6923	4822 130 10417	LOT670-JK	1		1	1	1		
6923	4822 130 11153	LOT770-JK		1				1	1
6924	4822 130 10417	LOT670-JK	1		1	1	1		
6924	4822 130 11153	LOT770-JK		1				1	1
6925	4822 130 10417	LOT670-JK	1		1	1	1		
6925	4822 130 11153	LOT770-JK		1				1	1
6926	4822 130 10417	LOT670-JK	1		1	1	1		
6926	4822 130 11153	LOT770-JK		1				1	1
6927	4822 130 10417	LOT670-JK	1		1	1	1		
6927	4822 130 11153	LOT770-JK		1				1	1
6928	4822 130 11153	LOT770-JK		1				1	1
7200	4822 209 12723	TDA7342	1	1	1	1	1	1	1
7230	4822 209 83159	LA2000	1	1	1	1	1	1	1
7260	4822 209 31981	SAA6579T	1	1	1	1	1	1	1
7302	4822 209 33629	TDA7375			1	1	1	1	1
7303	4822 209 33629	TDA7375	1	1	1	1	1	1	1
7400	4822 130 60511	BC847B	1	1	1	1	1	1	1
7401	5322 130 60508	BC857B	1	1	1	1	1	1	1
7402	4822 209 15418	L4949ED	1	1	1	1	1	1	1
7407	4822 130 60511	BC847B	1	1	1	1	1	1	1
7409	5322 209 14477	HEF4013BT	1	1	1	1	1	1	1
7410	5322 130 60508	BC857B	1	1	1	1	1	1	1
7412	4822 130 60511	BC847B	1	1	1	1	1	1	1
7413	4822 130 60511	BC847B	1	1	1	1	1	1	1
7417	4822 130 10839	2SD2061	1	1	1	1	1	1	1
7418	4822 130 10839	2SD2061	1	1	1	1	1	1	1

			DC449/62L	DC449/62E	DC459/62F	DC459/62L	DC459/62Z	DC459/62E	DC459/62S
7420	5322 130 60508	BC857B	1	1	1	1	1	1	1
7421	4822 130 60511	BC847B	1	1	1	1	1	1	1
7470	4822 130 10659	2SD2039	1	1	1	1	1	1	1
7471	4822 130 60511	BC847B	1	1	1	1	1	1	1
7472	5322 130 60508	BC857B	1	1	1	1	1	1	1
7473	5322 130 60508	BC857B	1	1	1	1	1	1	1
7474	5322 130 60508	BC857B	1	1	1	1	1	1	1
7475	4822 130 60511	BC847B	1	1	1	1	1	1	1
7500	4822 209 16186	TMP87CM21F/2255	1	1					
7500	4822 209 16187	TMP87CM21F/2254			1	1	1	1	1
7501	4822 900 11209	ST24W16M6-22DC449/62L	1	1					
7501	4822 900 11211	ST24W16M6-22DC459/62L				1	1	1	
7501	4822 900 11212	ST24W16M6-22DC459/62F			1				1
7600	4822 209 32743	MSM6307GS				1	1	1	
7680	4822 130 60511	BC847B	1	1	1	1	1	1	1
7700	4822 209 15585	TEA0675T/V2			1	1	1	1	1
7701	4822 130 60511	BC847B			1	1	1	1	1
7702	5322 130 60508	BC857B			1	1	1	1	1
7703	4822 130 60511	BC847B			1	1	1	1	1
7705	4822 130 60511	BC847B			1	1	1	1	1
7740	4822 130 44283	BC636	1	1	1	1	1	1	1
7741	4822 130 60511	BC847B	1	1	1	1	1	1	1
7742	4822 130 60511	BC847B			1	1	1	1	1
7770	4822 209 33162	MC4558IDT	1	1					
7900	5322 209 11306	HEF4094BT	1	1	1	1	1	1	1

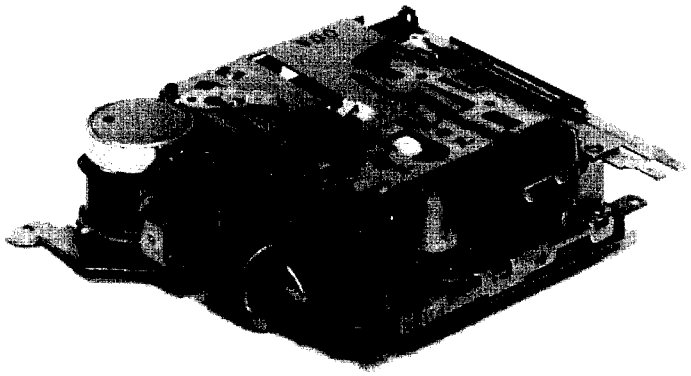
Car cassette deck CDS-101SPF

CDS-101WPF
CDS-101XPF
CDS-101YPF

Service
Service
Service

ServiceManual

12V



TECHNICAL DATA

Operating voltage	: 10-16V
Tape speed	: 4.76cm/sec ±2%
Wow & flutter	: ≤0.35% RMS (+10 - +45$C)
Crosstalk (track 2-3)	: <-40dB
Fast wind time	: ≤100secs (C-60)
Number of tracks	: 2x2
Channel separation (Tracks 1-2/3-4)	: >30dB

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4822 7 25 24651

PCS 81 204

PHILIPS

GENERAL

The CDS-101 is supplied in 4 versions:

a. CDS-101SPF: Standard version.
b. CDS-101WPF: As CDS-101SPF version, with "Key-Off/A.M.S." and tape selector included.
c. CDS-101XPF: As CDS-101SPF version, with "Key-Off/A.M.S." and "Real-Time FF/REW" included.
d. CDS-101YPF: As CDS-101SPF version, with "Key-Off/A.M.S.", "Real-Time FF/REW" and tape selector included.

(A.M.S. = Automatic Music sensor System)

CONNECTIONS

CDS-101SPF/WPF/YPF
(* WPF/YPF version only; SPF version: N.C.)

Pin no.	Wire colour	Signal
1	--	--
2	--	--
3	Brown	GND
4	Red	+ 14.2 VDC
5	Orange	N.C.
6	Yellow	Play switch
7	Green	Mute switch
8	Blue	Track switch
9	Purple	Solenoid*
10	Grey	N.C.
11	White	Me/Cr sw.*

CDS101-XPF

Pin no.	Wire colour	Signal
1	Brown	GND
2	Red	+ 14.2 VDC
3	Orange	N.C.
4	Yellow	Play switch
5	Green	Mute switch
6	Blue	Track switch
7	Purple	Solenoid
8	Grey	N.C.
9	White	N.C.

HEAD CONNECTIONS

(all versions)

Pin no.	Wire colour	Signal
1	Black	GND
2	White	Left out
3	Pink	Right out

MAINTENANCE

The cassette mechanism requires periodic cleaning.

Cleaning with alcohol or spirit

- Playback head pos.109.
- Capstan & pressure rollers pos.10, 11 and 27.
- Belt (pos.105) & pulley (pos.73).

To clean head, pressure roller and capstan, it is also possible to use drop-in cassette SBC114 (4822 389 20035).

ADJUSTMENTS AND CHECKS

Equipment required:

- Universal test cassette SBC419 (4822 397 30069)
- Universal test cassette SBC420 (4822 397 30071)
- Friction test cassette 811/CTM (4822 395 30054)
- Spring scale 50-500g (4822 395 80028)
- Wow & flutter meter
- AC millivoltmeters

1. Azimuth (Fig. 1 - next page)

Azimuth alignment should be carried out on a complete car radio; proceed as follows:

- Connect the millivoltmeters to the loudspeaker outputs.
- Insert test cassette SBC419 (or SBC420), select NOR (normal play) and play the 10kHz signal.
- Adjust Azimuth screw "FWD DIRECTION" (pos. 137) for equal and maximum output voltage reading for both right and left channel.
- Switch to REV (reverse play) and play the 10kHz signal.
- Repeat the adjustment with screw "REV DIRECTION" (pos.137).

- Adjust Azimuth screw "B" (pos.143) for maximum and equal outputs both for NOR and REV play and both for right and left channel. Repeat the procedure, if necessary.

2. Pressure roller pressure

The pressure on the capstan should be 250 - 350 grammes (2.5 - 3.5N).
This pressure is measured as follows (NOR and REV):
- Select Play mode.
- Push the pressure roller back at the shown point by means of the spring scale.
- At the point where pressure roller and capstan just disengage the spring scale should be read.
- If the pressure is incorrect, replace spring 94 (95).

3. Friction clutch (Reel assy) 22

- Insert friction test cassette 811/CTM (NOR and REV).
- Play take-up torque should be 35 - 75g/cm.
- Fast wind torque should be 40 - 150g/cm.
- If the torque is not correct, replace reel assy 22.

4. Wow & flutter/tape speed (Fig. 2)

This check is carried out on an complete car radio; proceed as follows:
- Connect the wow & flutter meter to the LS outputs.
- Insert test cassette SBC419 (or SBC420) and play the 3150Hz signal.
- The wow & flutter value should be ≤0.35%
- Tape speed should be 4.76cm/sec. ±2%
- The tape speed can be adjusted with screw "S".

In case of an excessive wow & flutter value, check following parts for correct functioning:
- motor 31
- pressure (pinch) rollers 10, 11
- belt 105
- friction clutches (reel assy's) 22
- flywheels 27
- pulley 73

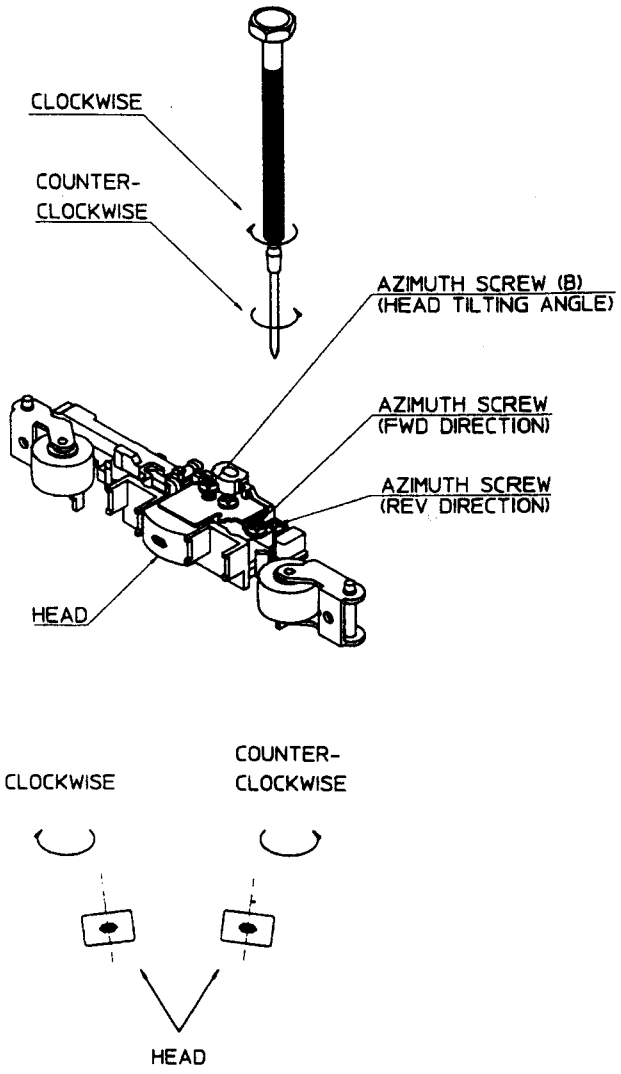


Figure 1

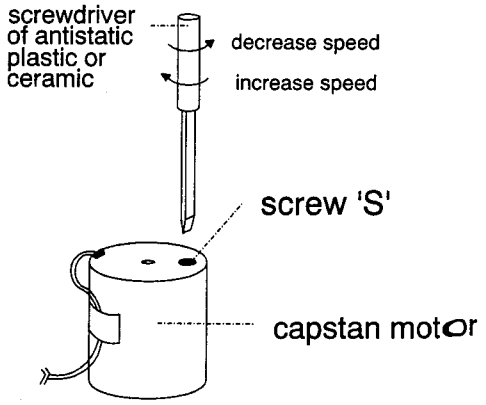


Figure 2

DISASSEMBLY INSTRUCTIONS

Refer to the exploded view to locate all positions.

Cassette Holder assy C
1. Bend the back lock of the return link 104 on eject lever 41.
2. Remove return link 104.
3. Take care that the cassette holder is in UPWARD position!
4. Remove screw 142.
5. Move the cassette holder assy to the left to unlock it from the pivots of the chassis, and lift the holder upward at the left.
6. Take the cassette holder assy out.
7. To separate the two parts of the cassette holder assy, lift the rear part up.

Reel base assy D
1. Lay the tape deck upside down on a soft surface.
2. Remove the four screws 146 which fix the bottom plate 54.
3. Remove the two screws 140 and screws 139 which fix the power switch assy A.
4. Remove the belt 105.
5. Remove the three screws 140 which fix the reel base assy.
6. Lift the reel base assy carefully.
7. To remove the reel assy 22, put a small screwdriver between the reel base and the reel assy base plate and turn the screwdriver carefully until the reel base gets loose.

Lever unit assy B
1. Remove the wire clamp 108.
2. Remove the lock arm spring 90.
3. Remove the screw 140.
4. Lift out the lever unit assy at the front.

Pressure rollers
1. First the cassette holder- and lever unit assy's should be removed.
2. Lift the pressure roller assy 10/46/47/94 (forward pressure roller) or 11/50/95 (reverse pressure roller).

Head Plate assy F and Head assy
1. First the cassette holder- and lever unit assy's should be removed.
2. Remove the two screws 136 which fix the tape guide 68.
3. Remove the adjuster arm spring 93.
4. Remove the head assy 67/93/109.
5. Remove the load lever spring 99 (not in -SPF).
6. Remove the adjuster link 66.
7. Remove the reset arm spring 86.
8. Pull the head plate 3 to the right side of the deck and lift it out carefully.

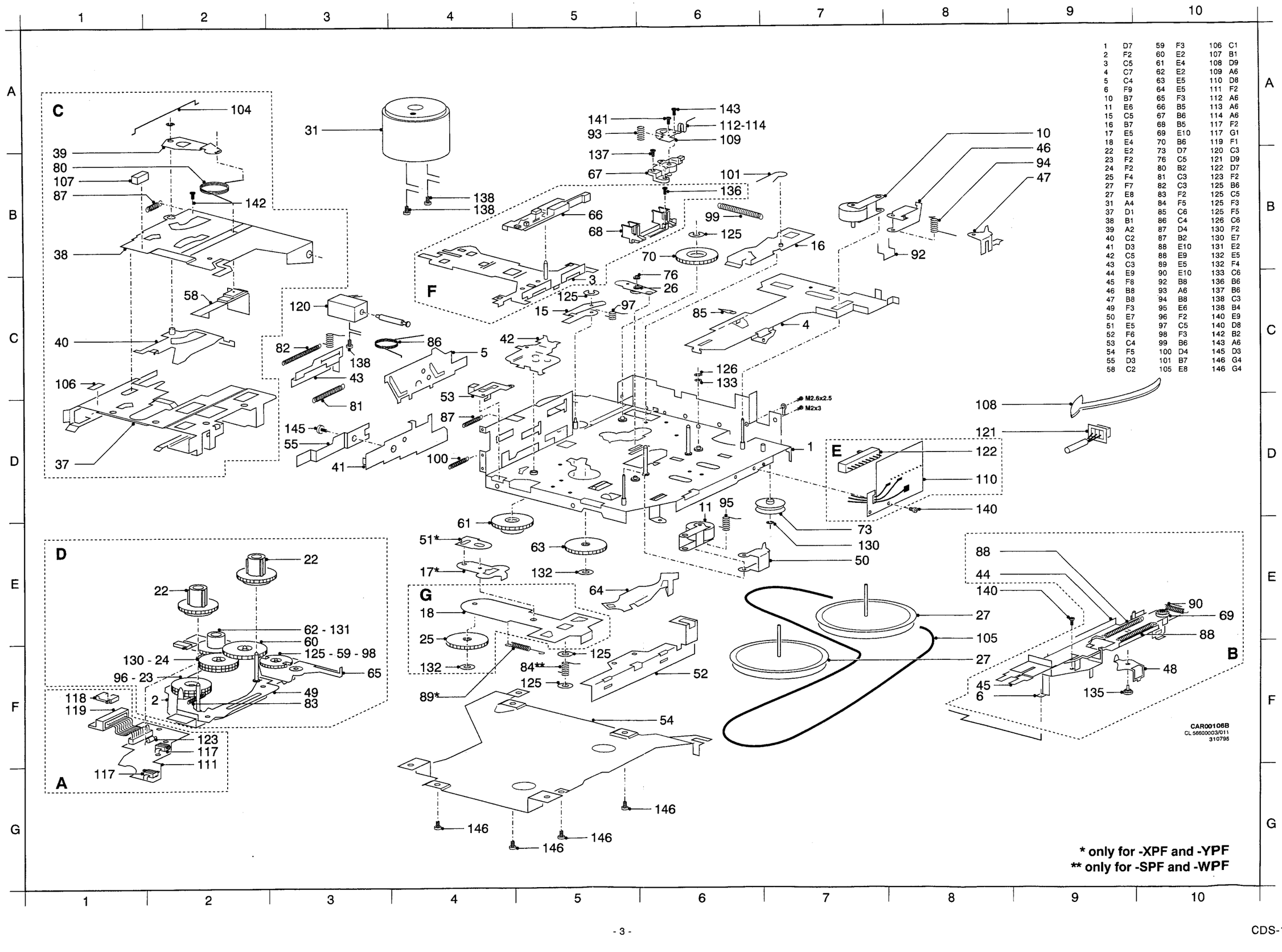
Flywheel 27
1. First the cassette holder- and lever unit assy's should be removed.
2. Remove the belt 105.
3. Remove the E-ring 126 and plate 133.
4. Remove the flywheel 27.

Note: Don't forget to re-insert the plate(s) 133 after re-assembling the flywheel(s)!

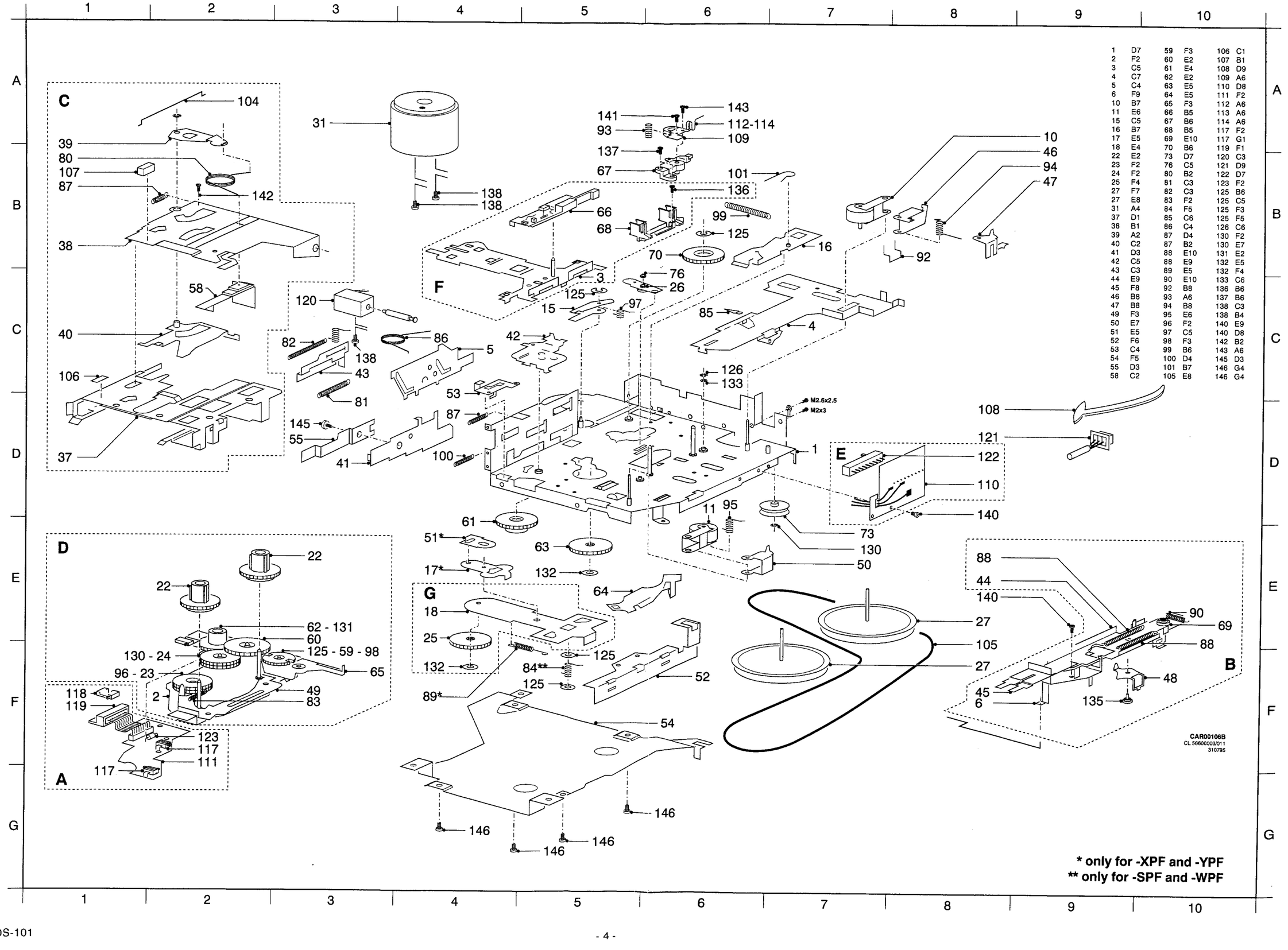
F/R arm assy G
1. First the reel base assy and both flywheels should be removed.
2. Remove E-ring 125 and the F/R arm spring 84.
3. Remove F/R change lever 52.
4. Remove the F/R arm assy G.

Motor assy 31
1. First the bottom plate 54 should be removed.
2. Remove, if present, fixing tapes etc. from the motor.
3. Unsolder the two wires from the motor terminals.
4. Remove the belt 105 from the motor pulley.
5. Remove the two screws 138 which fix the motor and take the motor out.

Solenoid 120
1. Unsolder the two solenoid wires from the switch pcb 111.
2. Remove the screw 138 which fixes the solenoid.



1	D7	59	F3	106	C1
2	F2	60	E2	107	B1
3	C5	61	E4	108	D9
4	C7	62	E2	109	A6
5	C4	63	E5	110	D8
6	F9	64	E5	111	F2
10	B7	65	F3	112	A6
11	E6	66	B5	113	A6
15	C5	67	B6	114	A6
16	B7	68	B5	117	F2
17	E5	69	E10	117	G1
18	E4	70	B6	119	F1
22	E2	73	D7	120	C3
23	F2	76	C5	121	D9
24	F2	80	B2	122	D7
25	F4	81	C3	123	F2
27	F7	82	C3	125	B6
27	E8	83	F2	125	C5
31	A4	84	F5	125	F3
37	D1	85	C6	125	F5
38	B1	86	C4	126	C6
39	A2	87	D4	130	F2
40	C2	87	B2	130	E7
41	D3	88	E10	131	E2
42	C5	88	E9	132	E5
43	C3	89	E5	132	F4
44	E9	90	E10	133	C6
45	F8	92	B8	136	B6
46	B8	93	A6	137	B6
47	B8	94	B8	138	C3
49	F3	95	E6	138	B4
50	E7	96	F2	140	E9
51	E5	97	C5	140	D8
52	F6	98	F3	142	B2
53	C4	99	B6	143	A6
54	F5	100	D4	145	D3
55	D3	101	B7	146	G4
58	C2	105	E8	146	G4



1	D7	59	F3	106	C1
2	F2	60	E2	107	B1
3	C5	61	E4	108	D9
4	C7	62	E2	109	A6
5	C4	63	E5	110	D8
6	F9	64	E5	111	F2
10	B7	65	F3	112	A6
11	E6	66	B5	113	A6
15	C5	67	B6	114	A6
16	B7	68	B5	117	F2
17	E5	69	E10	117	G1
18	E4	70	B6	119	F1
22	E2	73	D7	120	C3
23	F2	76	C5	121	D9
24	F2	80	B2	122	D7
25	F4	81	C3	123	F2
27	F7	82	C3	125	B6
27	E8	83	F2	125	C5
31	A4	84	F5	125	F3
37	D1	85	C6	125	F5
38	B1	86	C4	126	C6
39	A2	87	D4	130	F2
40	C2	87	B2	130	E7
41	D3	88	E10	131	E2
42	C5	88	E9	132	E5
43	C3	89	E5	132	F4
44	E9	90	E10	133	C6
45	F8	92	B8	136	B6
46	B8	93	A6	137	B6
47	B8	94	B8	138	C3
49	F3	95	E6	138	B4
50	E7	96	F2	140	E9
51	E5	97	C5	140	D8
52	F6	98	F3	142	B2
53	C4	99	B6	143	A6
54	F5	100	D4	145	D3
55	D3	101	B7	146	G4
58	C2	105	E8	146	G4

PARTSLIST

10	4822 528 81548	PINCH ROLLER FW	
11	4822 528 81549	PINCH ROLLER REV	
22	4822 528 10913	REEL ASSY	
27	4822 528 60429	FLYWHEEL ASSY	
31	4822 361 30456	MOTOR ASSY	
61	4822 522 33539	REDUCTION GEAR (A)	
63	4822 522 33541	IDLER GEAR (A)	
70	4822 522 33542	LOAD GEAR	WPF, XPF, YPF
73	4822 528 81551	IDLER PULLEY (A)	
86	4822 492 42753	RESET ARM SPRING	SPF
86	4822 492 42756	RESET ARM SPRING (K)	WPF, XPF, YPF
89	4822 492 33485	POS. SETTER SPRING	XPF, YPF
93	4822 492 33486	ADJUSTER ARM SPRING	
94	4822 492 42754	PINCH ROLLER SPG FW	
95	4822 492 42755	PINCH ROLLER SPG REW	
99	4822 492 33487	LOAD LEVER SPRING '	WPF, XPF, YPF
100	4822 492 33488	TAPE SELECTOR SPRING	WPF, YPF
101	4822 492 42757	LOAD LEVER SPRING (B)	WPF, XPF, YPF
105	4822 358 31326	BELT	
109	4822 249 30219	HEAD	
120	4822 281 50188	SOLENOID	WPF, XPF, YPF
123	4822 130 83863	DIODE	WPF, XPF, YPF
125	4822 530 80699	E-RING 1.5MM	
126	4822 530 80701	E-RING 1.6MM	
132	4822 530 70629	PLATE 2.1X4MM	
133	4822 530 70628	PLATE 2.1X3.2MM	
137	4822 502 21608	AZIMUTH SCREW	
143	4822 502 21607	AZIMUTH SCREW (B)	

COMPLETE DECKS

4822 691 10436	CDS-101SPF COMPLETE	
4822 691 10437	CDS-101WPF COMPLETE	
4822 691 10435	CDS-101XPF COMPLETE	
4822 691 10434	CDS-101YPF COMPLETE	

ASSEMBLIES

A	4822 276 13605	POWER SWITCH ASSY	SPF
A	4822 276 13604	POWER SWITCH ASSY	WPF, YPF
A	4822 276 13606	POWER SWITCH ASSY	XPF
B	4822 404 21342	LEVER BRACKET ASSY	
C	4822 256 92307	CASSETTE HOLDER ASSY	
D	4822 528 10915	REEL BASE ASSY	SPF
D	4822 528 10916	REEL BASE ASSY	WPF, XPF, YPF
E	4822 214 52263	SWITCH PCB ASSY	
F	4822 466 83197	HEAD PLATE ASSY	
G	4822 404 21343	F/R ARM ASSY	SPF, WPF
G	4822 404 21344	F/R ARM ASSY	XPF, YPF